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ABSTRACT

In order to determine the manner and extent of treatment of the elderly in children's television programs, a random sample of children's programs was examined. The purpose was to discover how frequently elderly people appeared during evening and children's Saturday morning programs; in what roles they were presented; in what occupations they were engaged; what types of behavior they exhibited; and what types of interactions took place between children and elderly persons. A content analysis technique and a semantic differential were used to answer these questions, and a generalizability analysis supported the assumption that the sample of elderly persons selected for evaluation were representative of the total population available. Findings were that older people appeared in over half the sampled shows, but older women and minorities were noticeably under-represented. Although the elderly appeared in a variety of roles, they were perceived as vague or neutral. Their behaviors were evaluated as positive, but just barely beyond neutral. It can be concluded that, while children's shows should include an increasing number of elderly persons, it may be more important that children be provided with a realistic, accurate portrayal of the elderly. (Author/BP)

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A STUDY OF HOW THE ELDERLY ARE PORTRAYED ON TELEVISION PROGRAMS VIEWED BY CHILDREN

Submitted to

The American Association of Retired Persons

National Retired Teachers Association

Andrus Foundation

by

Center on Aging

Division of Human and Community Resources

and the

Department of Early Childhood/Elementary Education

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ABSTRACT

The purpose of this study was to examine the extent to and manner in which the elderly were portrayed in television programs viewed by children. The need for this study became evident as a result of a previous investigation in which it was revealed that children, aged three to eleven, had very negative and stereotypic perceptions of the elderly. It was apparent that children were receiving inaccurate and negative information about the elderly. The determination of television as a possible source from which children were getting such information became important.

To document the extent to and manner in which the elderly were portrayed on television, the following questions were investigated:

1. How frequently did the elderly appear during evening and children's Saturday morning television programs?
2. In what roles were the elderly presented?
3. In what occupations were the elderly engaged?
4. What types of behaviors did the elderly exhibit?
5. What types of child/elderly interactions took place?

The importance of having a representative sample of programs viewed by children was taken into consideration in this study. For this reason half-hour time periods between 7:30 p.m. and 10:00 p.m. on weeknights and between 8:00 a.m. and 12:00 noon on Saturdays were randomly sampled over a ten week period. A total of 65 half-hour segments for weeknights and 20 half-hour segments for Saturdays were

taped for analysis. From this sample another random subsample depicting elderly persons, children and adults was selected for further evaluation.

In order to answer the questions relating to frequencies, roles and occupations of the elderly, a content analysis technique was employed. A semantic differential was also utilized to help answer questions regarding specific behaviors displayed by the elderly persons in the selected subsample of sequences. Two research associates completed the content analysis, and students in the College of Education at the University of Maryland participated in the semantic differential analysis. In addition, a generalizability analysis was performed. The data supported the position that the sample of elderly persons selected for the evaluation were representative of the total population available.

Results from the analyses for the evening programs indicated the following:

1. Although approximately one-half of the programs sampled portrayed at least one person over the age of 60, the elderly were not presented in equal numbers on the ABC, CBS, and NBC networks and their affiliates. CBS presented more than half of the 59 elderly persons present.

2. Older women, children and minority groups were under-represented in the total sample of shows. Over 85% of the elderly presented were men.

3. There were only four child/elderly interactions in the total sample of shows.

4. Although elder persons more often appeared in minor roles, those roles were achieved rather than ascribed. Older women, however, were more likely to be found in ascribed roles.

5. Although over half of the elderly persons were portrayed as holding full-time positions, the determination of the type of job and the occupational prestige of the job was impossible in many cases. There were, however, no elderly blacks or women found in occupations classified as high-prestige.

6. The largest proportion of older persons were portrayed as being of the middle class. Women, however, were more likely than men to be portrayed as having lower socio-economic status.

7. The behaviors of the elderly compared to behaviors of others indicated that there was as much variation within as between age groups.

Results from the analyses of the Saturday morning programs indicated the following:

1. Although over half of the Saturday morning programs portrayed an elderly person, there were no elderly blacks or other minorities represented; women and children were under-represented.

2. There were no child/elderly interactions.

3. Most of the elderly were portrayed in minor roles, which were achieved rather than ascribed; no women were in ascribed roles.

4. Although the elderly were almost evenly distributed among the lower, middle and upper socio-economic levels, there were no women of high socio-economic status.

5. Although the few elderly women presented were employed, their occupations were not of high prestige.

The older person appeared on television in over half of the sampled shows, however, older women and minorities were noticeably under-represented. The elderly were shown in a variety of occupations and roles. Yet the total picture of the elderly that emerged was one that was vague or rather neutral. In the portrayal of the elderly many of their occupations were impossible to determine, and the majority of their roles were classified as minor. Although the behaviors of the elderly were evaluated as positive, they were just beyond neutral.

Children should be provided with an increasing number of elderly persons on television programs, however, it may be more important that they be provided with a realistic and accurate portrayal of the elderly. Children, as others, should have the opportunity to see on television many more models of elderly men, women and minorities. These models should be appropriately represented on television as they are in the real world.

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INTRODUCTION

Statement of the Problem

The purpose of this study was to examine the extent to and manner in which the elderly are portrayed in television programs viewed by children. The need for this study became evident as a result of a previous investigation in which it was revealed that children, aged 3-11, had very negative and stereotypic perceptions of the elderly. It was apparent that children were receiving inaccurate and negative information about the elderly. The determination of television as a possible source from which children were getting such information became important.

To document the extent to and manner in which the elderly were portrayed on television the following questions were investigated:

1. How frequently did the elderly appear during evening and children's Saturday morning television programs?
2. In what roles were the elderly portrayed?
3. In what occupations were the elderly engaged?
4. What types of behavior did the elderly exhibit?
5. What types of child/elderly interactions took place?

Significance

Reaching approximately ninety-eight percent of American homes, television has been recognized as a teaching instrument relaying information to the young about the world and affecting their beliefs and behaviors. As children view television daily, spending up to 1/3 of their waking hours in front of a television set (Lyle & Hoffman, 1972), the effect of television viewing on children has become a mounting issue. Television must stand with parents, teachers and peers as a source of stimuli and information children use to develop attitudes toward groups of people, including the elderly.

Recently, television's portrayal of the elderly has become a concern of individuals and organizations, including the federal government. In 1977 and 1978, the United States House of Representatives' Select Committee on Aging held hearings in an effort to explore the portrayal of the elderly in television programs and commercials. This response by the government was, in part, an attempt to reply to the many concerned citizens and agencies dealing with the aging population who were no longer willing to accept the image of the elderly being presented through the television media. These hearings brought attention to the importance of showing the elderly in an accurate and realistic manner in the media. The extent to which the networks and advertising agencies have responded has been, as yet, unanswered.

Documentation of the extent to and manner in which the elderly are being portrayed in television is necessary. As FCC Commissioner, Nicholas Johnson, has observed, "All television is educational television. The only question is what is it teaching?" (Leibert and Baron, 1972, p. 470). Minow and Mills (1978), writing about television as an educational tool, further commented that television is perhaps the most effective medium of instruction in this country.

The public must be informed of the great potential inherent in this medium for enhancing the quality of life for individuals and society as a whole. The public should be receiving information about the elderly through the television medium in a positive and realistic way. This study was undertaken to determine what the public, especially the young viewing audience, is being told directly and indirectly about the elderly population.

If the elderly were found to be portrayed in the programs, that have been selected and taped, as weak, silly, helpless, passive, and sick, then this would be of great significance for decision makers, for it would parallel the research findings that suggest that children view the elderly in this way (Jantz, et al., 1976). If it were revealed that children were receiving negative messages about aging, then it would further confirm the evidence that children regard aging with aversion. The absence of the elderly on television viewed by children would also be significant.

Television Sampling

A major concern in documenting the extent to and manner in which the elderly were portrayed on television viewed by children was the selection of the television programs to be analyzed. A review of the literature revealed a paucity of research on the image of the elderly being conveyed in television viewed by children. For the few studies that have been conducted on the portrayal of the elderly in television programs, the sampling procedures have been questioned as to their representativeness.

The most common procedure has been to sample programs from a one or two week period. In analyzing the visibility and image of old people in television, one study sampled 30 half-hour time periods between the hours of 8:00 and 11:00 p.m. from the seven days of the week (Petersen, 1973). Everything was randomly sampled, including the major network affiliates. The study took place over a period of one week from February 25 through March 3, 1972.

A different sampling procedure was used by Northcott (1975) in an attempt to examine the elderly as depicted in television drama. The sample selected in this study included 41 programs or 35 hours of programs shown during the hours of 7 p.m. and 10 p.m. for one week in February of 1974. No random sampling was done, and only role portrayals lasting at least two minutes were analyzed. The sample was restricted to drama portraying a modern setting, thereby eliminating cartoons, newscasts, commercials, quiz shows, documentaries, westerns, and sports from the analysis.

From eight one-week samples of dramatic television programs aired during the fall of each year from 1969 through 1976 and from two one-week samples aired during the spring of 1975 and 1976, Gerbner (1977) analyzed the portrayal of the elderly shown on prime time, 8 p.m. to 11 p.m., and weekend daytime hours not specified. According to Eleey (1969) the sample of an entire week of programs, as Gerbner used, will yield results that are as generalizable as results obtained from an analysis of a random sampling of a year's programming.

Responding to the content analysis of TV violence, using a one-week sample, CBS contended that in recent years there was no such thing as a representative week of television (Bergreen, 1977). Given the wide range of programs offered by the networks today, the argument made by CBS against the use of a one-week sample may have some validity.

The importance of having a representative sample of programs viewed by children was taken into consideration in the present study. For this reason an approximate 10% random sample of the available programs from the three major network affiliates over a ten-week period was chosen. In addition, to assure generalizability, half-hour time periods aired during the hours of 7:30 p.m. and 10 p.m. on weekdays and between 8 a.m. and 12 noon on Saturdays were randomly selected. These time periods were chosen because of the likelihood that most children watch at these times.

Sixty-five half-hour segments were taped for analysis from the week night prime time television viewing period. Twenty half-hour segments were taped from the Saturday morning period. The sampling of programs was then analyzed to help answer the key questions. A more detailed description of the sampling procedure appears in Chapter III.

Organization of the Study

To answer the questions relating to frequencies, roles and occupations of the elderly, a content analysis technique was employed. Content analysis methodology is considered appropriate for use in determining the attitudinal components of a variety of materials. It has been defined as a research technique for the objective and quantitative description of the manifest content of communication (Khan and Weiss, 1973).

In order to determine the extent to which the elderly were portrayed, the first part of this study consisted of frequency counts of elderly persons on selected sequences viewed by children during prime time and on Saturday mornings. The roles and occupations of the elderly were analyzed to help document the manner in which the elderly were portrayed in television programs viewed by children.

The data summarized in Appendixes D and E and the Standard International Occupation Prestige Scale in Appendix A were used to answer these questions:

1. How frequently did the elderly appear during evening and children's Saturday morning television programs?
2. In what roles were the elderly portrayed?
3. In what occupations were the elderly engaged?

A semantic differential was used to examine the manner in which the elderly were portrayed. This data answered questions regarding specific behaviors as displayed by the elderly characters in the selected sequences, and examined child/elderly interactions. The questions to be answered using this technique were:

4. What types of behavior did the elderly exhibit?
5. What types of child/elderly interaction took place?

The semantic differential has proven to be successful in measuring the valences of stereotypic attitudes and in determining the content or dimensions of such attitudes. The semantic differential has an advantage in that it can be numerically scored, thus facilitating analysis and allowing comparisons to be made regarding children and the elderly.

In addition, a generalizability analysis was employed to determine the representativeness of the elderly sample which was used to supply data to answer Questions four and five. Comparisons were made of the actual number of programs sampled with a projected increase to determine the extent to which the estimated standard error of the means would be affected by the sample size.

The following chapters describe the study as it was conducted. Chapter II of this report contains the review of literature. The review focuses on children and television, television as an influence on behaviors and attitudes, the elderly on television, and children's attitudes toward the elderly. Chapter III contains the methods and procedures followed. The television sample, the rating of the programs, and the statistical treatments are discussed in this chapter. Chapter IV contains the results of the study. Chapter V has the summary, the conclusions, and recommendations. The appendix materials contain more detailed information used to document the extent to and manner in which the elderly are portrayed on television viewed by children.

REVIEW OF THE LITERATURE

Introduction

Ever since concern was expressed about the possibility of television having harmful effects on children, researchers have attempted to investigate various aspects of television in the lives of children. While some of the questions have been answered, they often gave rise to new questions that continued to make the topic of children and television one of controversy.

For example, once the results of the viewing habits of children were made public, investigators began to question the effects of television on children's social behaviors. If, as indicated, children were learning behaviors seen on television, then couldn't they also be receiving information which might shape their attitudes?

These and other questions have led researchers to examine the types of information being related to children through the medium of television. Most studies have focused on what television might be doing to children's perceptions of women and blacks. Very little, however, has been done to examine the way in which the elderly are portrayed on television to children. In view of children's attitudes toward the elderly, this would appear to be an area of needed research.

This section examines television in the lives of young children and the ways in which it can influence behaviors and attitudes. In addition, it looks at the research thus far on television's portrayal of the elderly and considers the fact that television might be a potential source for children's attitudes toward the elderly.

Children and Television

For children, television is the most accessible and widely used of the media. Recent Nielsen data (1978) show that 98% of all households in the U.S.A. have at least one television set. In addition to its availability, Gerbner and Gross (1976) pointed out the other unique characteristics of television that make it a "Universal Curriculum". It doesn't require literacy. It runs continuously. It can show as well as tell. It does not require leaving one's home.

Examinations of the viewing patterns for young children have revealed that by age two children often begin watching television and by age three many children already have favorite programs (Lyle & Hoffman, 1972; Schramm, Lyle & Parker, 1961). Estimates of the actual amounts of time children spend watching television vary from 10 to 88 hours per week (Stein & Friedrich, 1975). In the Nielsen sample (1977) preschool children, aged 2-5, watched an average of 27½ hours per week; elementary school children, aged 6-11, watched nearly 24½ hours per week.

Young children were found not only to be watching numerous hours of television, but to believe much of what they witnessed. Greenberg and Reeves (1976), in an investigation of perceived reality of television content by third through sixth graders, found that the younger, less able and heavy viewers of television put more credence in television events and characters. Children at all ages showed a greater tendency toward belief when asked about specific characters and content than when asked about the true-to-lifeness of television in general. Personal experience with content phenomena (families, blacks, policemen), however, did not diminish the the reality of television's portrayals of these groups.

Television becomes more real than fictional for children younger than three years of age, as suggested by Morris (1971). It was reported that children this young see television events as isolated and disjointed--much the same way they see real life events. By ages three and four children still have problems distinguishing fantasy from reality in television content. They are not likely, however, to confuse cartoons with reality, because cartoon characters and events are not like any of the child's real life experiences.

Television as an Influence on Behaviors and Attitudes

Although parents and peers have long been acknowledged as primary sources of information for children, any and all of the stimuli children receive from their environment may contribute to the formation and modification of attitudes. Bandura (1977) in a discussion of the process of symbolic modeling, described still another influential source affecting the learning of attitudes and behaviors:

> During the course of their daily lives, people have direct contact with only a small sector of their environment. Consequently, their perceptions of social reality are heavily influenced by vicarious experiences--what they see, hear, and read in the mass media. The more people's images of reality derive from the media's symbolic environment, the greater is its social impact. (p.40)

Given the data on children's viewing habits and perceptions of reality of television content, over the years, researchers have focused on the effects of television on children. The experimental studies of Bandura (1965) set the stage for later laboratory and field investigations of the effects of television on children's behavior. The efforts of numerous studies (Drabman & Thomas, 1977; Feshback & Singer, 1971; Lefkowitz, Eron, Walder, & Huesmann, 1972; Liebert & Baron, 1972; Poulos, Rubinstein & Liebert, 1975; Stein & Friedrich, 1972; etc.) reached similar conclusions--that children were, in fact, learning social behaviors from television.

Most of the research concerning television and children has emphasized the behavioral effects. Several studies, however, have investigated television's role as a learning source for social information and attitudes. Studies showing direct cause and effect relationships between television and attitudes are noticeably lacking. There are, however, strong indications, as evidenced in several studies, that children's social learnings can be greatly influenced by television.

In one study (De Fleur & De Fleur, 1967) television was found to be a more potent source of occupational status knowledge for young children than either personal contact or general community culture. These children, aged 6-13, were shown cartoon-like portrayals of occupations about which they could gain knowledge through personal contact, television or the general culture. Children at all ages had more role knowledge of the television occupations.

Another investigation (Miller & Reeves, 1976) investigated the impact of television on children's occupational sex roles. Two hundred children in grades three through six were surveyed concerning people on television who they would like to be like when they grow up. An examination of the children's responses showed that boys more than girls nominated televised characters as models for their behavior. Although no boys selected women as models, 27% of the girls chose one or more male models.

Differences between children who were not exposed to televised women in traditionally male roles indicated that exposure altered real-life perceptions. Those children who viewed women in counter-stereotypic roles perceived those occupations as more appropriate for women in real life.

Further illustrating television's role as a source of information for attitude formation, Greenberg (1972) found that black and white, fourth and fifth graders both believed blacks were portrayed on television as they really were. In addition, it was revealed that white children more often than blacks cited television as their source of information about the other race. With respect to white children's proximity to blacks, two-thirds of the rural, one-third of the suburban and one-fifth of the urban children cited television as their principal source of information about how blacks look, talk and dress.

The Elderly on Television

The studies discussed demonstrate that television can be a potent source of information for children, especially when first-hand information is lacking. Because children have few contacts with old people, television may be their primary source of information on aging and the elderly. Few studies, however, have specifically focused upon television's portrayal of the elderly. In recent years this has begun to change, with studies looking at different aspects of how the elderly are portrayed.

In one study, for example, Aronoff (1974) examined data pertaining to age, located in the 1969-1971 Cultural Indicators archives at the University of Pennsylvania. The demographic data, derived from one-week samples randomly selected each year from prime time network television drama, showed that of the 2740 characters, the elderly comprised less than 5% of both sexes. In addition, aging was found to be associated with increasing evil, failure, and unhappiness. The most recent updated figures (Gerbner et al., 1978) show a continuation of these trends, but a decline in the number of elderly to less than 3% of the characters.

In terms of violence, elderly men were more often the perpetrators than the recipients. Elderly men were, in fact, more likely than any other age-sex subgroup to commit violence. However, when it came to lethal crimes the elderly male was more likely than all other groups, except elderly women, to be killed. Elderly women were three times as likely to get hurt than to hurt someone. In none of the portrayals was the elderly woman cast in the role of the killer.

The visibility and image of the elderly were also examined in another investigation (Petersen, 1973) that randomly sampled 30 half-hour segments from prime time programs broadcast during a one-week period. Old people were found to appear in television programs in a percentage at least proportional to their percentage in the general population. Old women, however, were significantly under-represented, while old men were significantly over-represented. Over 90% of the television elderly were male.

The elderly sample in this study was further rated on a checklist consisting of 21 bi-polar pairs of attributes, each on a seven-point scale. Of the summed ratings, 18.2% were unfavorable, 23.1% were neutral and 58.7% were favorable. The elderly received the most unfavorable ratings on the attributes of unfavorable attitudes of others, unfriendly and socially rejected. They were most favorably rated on the attributes of activeness, good health and independence. It was concluded that, in general, the elderly were visible on the television programs and projected a favorable image.

In contrast to the prime time samples of previous studies, Harris and Feinberg (1977) collected data over a six-week period from four-hour random samplings of each of the four time segments (8 a.m.-12 p.m., 12 p.m.-4 p.m., 4 p.m.-8 p.m., 8 p.m.-12 a.m.). Both programs and commercials were analyzed on the basis of frequency and characterization of the elderly. The analysis revealed that old people comprised slightly more than 8% of all characters. About 10% of the characters on news and talk shows and children's programs were elderly. The elderly also made up 9.5% of comedy show characters, 7% of game show characters and 6% of drama and soap opera characters. Only one person between 50-60 and no one over age 60 was shown in a positive romantic involvement. According to the researchers, "Here television clearly perpetuates the myth of the sexless, boring oldster whose inner life is unworthy of interest" (p. 465). Although the elderly did not participate in sexual activity, they were often portrayed as moderate to high in physical activity.

Authority and esteem by others were found to decrease with age for women, while esteem increased for men above age forty. Most older men of authority were senators, congressmen, etc., who were on news and talk shows.

Children's Attitudes Toward the Elderly

Although researchers have investigated several aspects of the elderly image on television, they have not examined the ways in which the elderly are portrayed in television programs viewed by children. Until this is done, there is very little that can be said about television as a possible contributor to children's attitudes toward the elderly. Information is not lacking, however, as to the nature of these attitudes. Over the past decade, a number of studies investigated children's attitudes toward the elderly, with results that did not differ greatly.

Attitudes are those predispositions to act, react or respond to people or things in either positive or negative ways (Mussen, 1969). The way people view and interact with others throughout their lifetimes is, in part, determined by their attitudes toward aging and the elderly. Such attitudes can also color the ways in which people approach different life stages. Realizing that attitudes begin to form in the very young child, recent research has focused on attitudes children hold toward the elderly and on the possible sources of information shaping these attitudes.

Hickey, Hickey and Kalish (1968) conducted an exploratory study of children's reactions to the elderly, in which more than 200 third graders wrote descriptive paragraphs about old people. Analysis of the writings revealed children's stereotyped impressions of the elderly as lonely, bored and inactive. Reactions were also mixed, in that many children perceived old people as either mean or very nice to children.

In a later study Hickey and Kalish (1968) incorporated the third graders' responses into a questionnaire designed to measure young people's perceptions of adult age groups and their awareness of age-related changes. Third graders, junior and senior high school students, and college undergraduates responded to descriptive and evaluative statements about adults (ages 25, 45, 65, 85). It was found that as a subject's age increased, greater differences were perceived between the adult age groups on descriptive items but not on evaluative items. Students at all ages were found to notice age-related differences between several age groups--the older the adult, the less pleasant was the image held by respondents.

In a more recent study (Thomas & Yamamoto, 1975), children in grades five through eleven were found to have mixed perceptions about the elderly. Shown newspaper photographs of young (age 30), middle-aged (age 50) and old (age 70) men, the children were asked to write a story about each man in order of their preference and to complete a semantic differential, rating each man on twelve seven-point scales.

The findings revealed that children at all ages chose to write about the men in the order: young, old, and middle-aged. The content of the stories, however, was stereotyped and superficial for all ages of adults. Results from the semantic differential analysis showed that children rated the elderly lower than the other two age groups on two of three dimensions. Rated higher in terms of goodness and wisdom, the elderly person was also perceived to be less pleasant, happy, exciting, powerful, and active than the younger men.

Similar attitudes toward the elderly were expressed by young children in a study conducted by Jantz, Seefeldt, Galper & Serock (1976). Using open-ended questions, a semantic differential, and pictures of men at four different ages, the researchers found that children between the ages of three and eleven had positive feelings of affect toward the elderly, yet negative and stereotypic attitudes toward aging. The elderly were viewed as friendly and wonderful, but also sick, ugly and sad. These children, as those in the Thomas & Yamamoto study (1975), preferred doing things with the youngest of the four men.

The bulk of research concerning children's attitudes toward aging and the elderly indicates that they are notably negative and stereotyped. The literature reveals that the determination of the source or sources of these attitudes remains unanswered.

Summary

Although the literature has shown that children have negative and stereotyped attitudes toward the elderly, the source of these attitudes has not yet been determined. The following conclusions from numerous research investigations have initiated speculation that television may have contributed to the formation of such attitudes.

1. Children often begin watching television by age two and have favorite programs by age three.

2. Young children between the ages of two and eleven watch an average of 25½ hours of television weekly.

3. Many young children believe the content and character portrayals they see on their television sets.

4. Children's social behaviors can be affected by what they see on television.

5. Children can also learn about occupational sex roles and racial groups through the television media. This information can alter real-life perceptions held by the young child.

6. Studies have examined several different aspects of the elderly's portrayal on television, but none has specifically responded to the question of how the elderly were presented in programs viewed by children.

METHODS AND PROCEDURES

Introduction

This study proposed to document the extent to and manner in which the elderly were portrayed in a random sample of television programs aired during evening and Saturday morning children's programming. Several different research techniques were employed to examine the portrayal of the elderly on randomly selected, half-hour videotaped program segments.

These segments will be referred to in this report as programs. All elderly persons portrayed in the programs were rated using a content analysis technique. In addition, a subsample of segments portraying elderly persons was randomly selected from the total sample. The sequences from the segments were then evaluated by independent raters using a semantic differential.

In order to document the extent to and manner in which the elderly were portrayed on television programs aired during evenings and Saturday mornings, the following questions were investigated:

1. How frequently did the elderly appear during evening and children's Saturday morning television programs?
    - a) Were they proportionately represented?
    - b) How frequently were elderly men, women and minorities presented?
    - c) What proportion of the programs presented children, adults, and elderly persons?
    - d) How frequently were children presented in interactions with elderly persons?

2. In what roles were the elderly portrayed?
   a) Were these achieved or ascribed?
   b) Were these major or minor?
   c) Were these of lower, middle, or upper socio-economic status?
3. In what occupations were the elderly engaged?
   a) Were these full-time or part-time occupations?
   b) What occupational prestige ranking did the work performed by the elderly represent?
4. What types of behaviors did the elderly exhibit?
   a) What degree of effectiveness did they exhibit in their behavior?
   b) What degree of autonomy did they exhibit in their behavior?
   c) What degree of acceptability did they exhibit in their behavior?
   d) Did the elderly behaviors differ significantly?
5. What types of child/elderly interactions took place?
   a) Were these within or outside the family structure?
   b) Were these active or passive interactions?
   c) Were these "doing for" types of interactions?
   d) Was the elderly person's behavior different in comparison to the younger person's behavior?

Definition of Terms

elderly - for the purpose of this study, an elderly person was one judged sixty years of age or older by the raters.

children - a child was one judged to be of preschool or elementary school age.

major role - the elderly's role was judged to be essential to the plot.

minor role - the elderly's role was judged to be non-essential to the plot.

achieved role - were those positions acquired on the basis of performance or skills.

ascribed role - were those positions attained because of the possession of certain attributes such as age, sex, seniority, etc.

occupational prestige - the ranking for the elderly was determined by the Standard International Occupational Prestige Scale. See Appendix A.

type of behavior - the degree of acceptability, autonomy, or effectiveness was determined by the mean scores on the "Aging Semantic Differential" (Rosencranz & McNevin, 1969).

active interaction - joint active or moving participation between a child and an older person; activities could involve such things as going places, playing games, other than board games, and doing things with each other such as cooking or planting gardens.

passive interaction - a child and an older person doing something together of a quiet, passive nature such as talking, reading, watching TV or playing checkers and other board games.

doing for - either a child or an older person doing something for the other person; the action would be on the part of only one of the parties.

The Television Sample

The television sample consisted of programs randomly selected and taped from the schedule offered for prime time and Saturday morning children's viewing. Programs were selected from half-hour time slots, which resulted in some cases taping the entire program. In other instances where programs were one or more hours in length, the half hour taped was a segment of the show. In a few cases, the random procedure selected both half hours of an hour long program; however, both half hours were treated as separate samples.

Various days of the week were equally weighted for the evening selections to omit bias of day or week. In addition, for all programs, major network offerings were equally weighted to control for network differences. Analysis of programs was limited to those depicting human beings or animals that verbally and visually displayed human qualities.

The following procedures were carried out for the random selection of programs to be videotaped and used in the analyses:

Evenings

1. The networks were randomly assigned in the order: CBS, ABC, and NBC.
2. The nights were randomly assigned in the order: Thursday, Monday, Friday, Tuesday, and Wednesday.
3. The available time periods (½ hour increments from 7:30-10:00 p.m.) were stratified by network and night; numbers were assigned for each of the available time periods.
4. The SR51 calculator was then used to randomly select the programs to be included in the study.

Saturday Mornings

1. The networks were randomly assigned in the order: ABC, CBS, NBC.
2. The available time periods (½ hour increments from 8:00 a.m.-12:00 noon) were stratified by network; numbers were assigned for each of the available time periods.
3. The SR51 calculator was then used to randomly select the programs to be included in the study.

Tables 1 and 2 contain a listing of the total sample of evening and Saturday morning programs by type. The tables list the types of programs, the number of elderly in each type and the percentage of elderly by type. Appendix B contains information on the programs sampled from the evening period. Appendix C contains information on the programs sampled from Saturday mornings.

From the total sample of shows selected from the evening time slots, a subsample of programs was randomly selected, from which sequences depicting persons of one or more age groups, were edited out for further evaluation. This subsample consisted of 1) sequences with an elderly person; 2) sequences with a child; 3) sequences with an adult; and 4) sequences with a child/elderly interaction. From among the total number of shows depicting at least one elderly person, a subsample of shows was randomly selected. Then, the first elderly person to have a speaking part in a sequence (with a beginning, middle, and end) was selected for evaluation by a group of raters. This procedure was repeated to obtain the other sequences. Tables 3 and 4 list the programs, persons, and roles for these edited sequences. See Appendix I for more information on the roles portrayed by the persons in the sequences. Appendix B also provides additional information on the programs from which the sequences were taken and on the person's role in the program.

Table 1

Types of Programs: Evening

Type and Programs	Number of Shows	Number of Elderly	% of Elderly
Adventure	4	2	3%
Black Sheep Squadron Black Sheep Squadron Black Sheep Squadron The Life and Times of Grizzly Adams			
Audience Participation	1	1	2%
The Price Is Right			
Comedy-Variety	10	8	14%
The Bob Hope Classic Comedy Special from Palm Springs The Bob Hope Classic Comedy Special from Palm Springs The Chuck Barris Rah Rah Show The Muppet Show The Muppet Show The Muppet Show The Muppet Show Sha Na Na Sha Na Na A Special Evening with Carol Burnett			
Documentary	3	3	5%
When Havoc Struck: Earthquakes Wide World of Animals Wide World of Animals			
Feature Films	10	10	17%
ABC Monday Night Movie: The Seven Ups ABC Friday Night Movie: Buster and Billie ABC Friday Night Movie: Having Babies III CBS Tuesday Night Movie: Hustle King (Mini Series) Movie: The Awakening Land			

Table 1 (cont'd.)

Type and Programs	Number of Shows	Number of Elderly	% of Elderly
Feature Films (cont'd.)			
Movie: The Cops and Robin			
Movie: Emergency			
Movie: Who Is Harry Kellerman and Why Is He Saying Those Terrible Things About Me?			
General Drama	5	8	14%
The Waltons			
The Waltons			
The Waltons			
What Really Happened to the Class of '65?			
What Really Happened to the Class of '65?			
General Variety	3	0	0
Cher Special			
John Denver in Australia			
Julie Andrews: One Step Into Spring			
Police Drama	4	2	3%
Charlie's Angels			
Richie Brockelman: Private Detective			
The Rockford Files			
The Rockford Files			
Quiz Programs	4	0	0
Family Feud			
Name That Tune			
$25,000 Pyramid			
$25,000 Pyramid			
Situation Comedy	16	17	29%
Barney Miller			
Candid Camera			
Candid Camera			
Candid Camera			
Carter Country			
C.P.O. Sharkey			
Eight Is Enough			
Eight Is Enough			
Good Times			
LaVerne and Shirley			

Table 1 (cont'd.)

Type and Programs	Number of Shows	Number of Elderly	% of Elderly
Situation Comedy (cont'd.)			
M - A - S - H			
One Day at a Time			
Three's Company			
Three's Company			
Welcome Back Kotter			
Welcome Back Kotter			
Science Fiction	4	8	14%
The Amazing Spider Man			
The Amazing Spider Man			
The Incredible Hulk			
The New Adventures of Wonder Woman			
Sports Event	1	0	0
Celebrity Challenge of the Sexes			
TOTALS	65	59	101%

With the exception of "Documentaries", programs were classified according to program types given in the National Nielsen Household and Persons Ranking report (Second Report for February, 1978).

Table 2

Types of Programs: Saturday Morning

Type and Programs	Number of Shows	Number of Elderly	% of Elderly
Animated (Cartoons)	15	22	96%
The Batman-Tarzan Adventure Hour			
The Batman-Tarzan Adventure Hour			
The Batman-Tarzan Adventure Hour			
The Bugs Bunny/Roadrunner Show			
The Bugs Bunny/Roadrunner Show			
The Harlem Globetrotters			
The Harlem Globetrotters			
The Harlem Globetrotters			
The Herculoids			
Hong Kong Phooey			
The Pink Panther Show			
Scooby's All Star Laff-a-Lympics			
Scooby's All Star Laff-a-Lympics			
Space Sentinels			
Super Friends			
Live Action	5	1	4%
The Krofft Supershow			
The Krofft Supershow			
The Krofft Supershow			
Secrets of Isis			
Wonderama			
Totals	20	23	100%

Table 3

Edited Sequences Containing Elderly Persons

Rating Group	Program	Person	Role
One	M - A - S - H	Colonel Potter	army officer (male)
	Chuck Barris Rah Rah Show	Name not given	chimpanzee trainer (male)
	Movie (The Seven Ups)	Bert	barber (male)
Two	Candid Camera	Allen Funt	show host (male)
	The Bob Hope Classic Comedy Special	Bob Hope	entertainer (male)
	Spider Man	Mr. Jamison	newspaper editor (male)
Three	Eight Is Enough	Name not given	desk clerk (male)
	Barney Miller	Mr. Lujak	thief (male)
	Spider Man	Dr. Bailor	college professor (male)
Four	A Special Evening with Carol Burnett	Bing Crosby	singer (male)
	Candid Camera	Name not given	senior citizen (female)
	The Waltons	Grandpa Walton	lumber mill hand (male)
Five	The Incredible Hulk	Leo Kahn	warehouse foreman (male)
	The Rockford Files	Dr. Brinkman	crime figure (male)
	The Life and Times of Grizzly Adams	Jack	trapper (male)
Six	Movie (Buster and Billie)	Name not given	hat stand clerk (female)
	Candid Camera	Name not given	taste tester (male)
	Movie (Emergency)	Barnie	ship's mate (male)

Table 4

Edited Sequences for Child, Adult and Elderly Behaviors

Age Group	Program	Person	Role
Child	The Waltons	Elizabeth	daughter
	Good Times	Penny	daughter
	Candid Camera	young boy	participant
Adult	Name That Tune	Tom Kennedy	program host
	One Day at a Time	Schneider	apartment superintendent
Elderly	The Bob Hope Classic Comedy Special	Bob Hope	entertainer
	M - A - S - H	Colonel Potter	an army officer
	What Really Happened to the Class of '65?	Pop	father

Edited Sequences for Child/Elderly Interactions

Program	Child	Elderly	Relationship
Candid Camera	young boy	Allen Funt	participant/interviewer
Candid Camera	Eric	Allen Funt	participant/interviewer
Movie (The Cops and Robin)	young girl	Uncle Cleaver	niece/uncle

Taping and Editing

Within the College of Education at the University of Maryland is located the Educational Technology Center which provides a full research facility for faculty and students. The audio-visual laboratory was made available for recording the selected programs on videotape and for editing sequences depicting a sample of elderly persons and sequences depicting age groups for the semantic differential analysis.

As the programs were videotaped, the research associates viewed them to ensure that the loss of programs, because of taping problems, was kept at a minimum so as not to jeopardize the sampling procedure. During the viewing process, the researchers also filled out the data form for the content analysis. The completion of this form enabled the investigators to randomly select those programs which contained sequences depicting a person or persons of one or more age groups to be evaluated later by groups of raters using the semantic differential.

The sequences were edited out of the original tapes and put on separate tapes which were shown to raters through the Educational Technology facilities. The research associates were present for all editing procedures and kept a record of the order in which the sequences appeared on the tapes. Upon completion of the editing, the investigators practiced using the tapes, so that the training of the raters and the actual rating would run smoothly and not endanger the validity of the study.

Raters and Rating

Content Analysis - Evening Programs

Two research associates viewed and independently coded each 30 minute program. All elderly characters who had speaking roles were identified in order of their appearance on a program. Gender and race were specified, and age was estimated to the nearest full year. The social class (socioeconomic status) of each elderly character was coded in one of three categories: lower, middle or upper class. Codings for social class were made on the basis of the cultural context of the program's story. For example, by today's standards, Grandpa Walton might be rated as lower class. He was coded as middle class, however, according to the specific cultural setting of the program.

The role played by each elderly character was categorized in two ways--according to the importance of the role to the program's story and according to the basis upon which the character attained the particular role. Role importance was coded as major if the character's role was essential to the plot. All nonmajor characters who had speaking parts were coded as minor. Role attainment was coded as achieved or ascribed. Achieved roles were those positions acquired on the basis of performance or skills. Ascribed roles were those positions attained because of the possession of certain attributes, for example, age, seniority or years in grade.

The occupations of elderly characters were identified by name or description. If it was discernible for the half-hour segment, each character was also coded as working full or part time.

Final ratings for each elderly character in each content category were obtained from consensus of the research associates' independent codings. When agreement could not be reached, judgments were resolved by a third party. Ages for the elderly characters were obtained by averaging the two coded age estimates.

Characters' occupations were assigned numerical codes developed from the Standard International Occupational Prestige Scale (Treiman, 1977). The codes represented high and low prestige rankings for occupations falling into the following categories: Professional and Technical; Managers and Administrators (except Farm); Clerical and Related; Sales Workers; Service Workers; Agricultural, Animal Husbandry and Forestry, Fishermen and Hunters; Production and Related Workers, Transport Equipment Operators, Laborers; Members of the Armed Forces. Rankings were not assigned for those occupations judged to be: Outside the Law; New Workers Seeking Employment; Unclassifiable Occupations; Not in the Labor Force (retired).

Nielsen ratings for programs in the sample were obtained from a Season Average Ranking list (Nielsen, 1978). The list ranked all regular prime-time programs appearing on the three major networks from September 11, 1977 - April 9, 1978. It did not include television movie or variety specials, syndicated programs broadcast during the 7:30-8:00 p.m. time slot or movie-length episodes of regular network programs.

Saturday Morning Programs

All thirty-minute segments were viewed by the research associates. Elderly characters were identified by name or description, and approximate ages were assigned. Race, sex and social class membership were coded. Character roles were rated as major or minor, achieved or ascribed.

Occupational title (or descriptions) and full or part-time employment status were noted. Upon completion of the viewing of all program segments, each character's occupation was assigned a numerical rating derived from Treiman's Standard International Occupational Prestige Scale.

Semantic Differential Analysis

Eighteen programs were randomly selected from all programs which contained at least one elderly person. The first sequence (situation with a beginning, middle and end) portraying an elderly person was edited out of each program onto a separate tape. Later, each of six groups of raters used the "Aging Semantic Differential" (Rosencranz & McNevin, 1969) to rate the behaviors of the elderly in three of the edited sequences. The instrument employed consisted of three dimensions, each containing bipolar sets of adjectives descriptive of attributes or behavioral characteristics of the persons or social objects rated.

The first dimension, called the instrumental-ineffective (Effectiveness) dimension, measured continuing activity to pursue goals, being able to change and being up-to-date on matters. Therefore, a person receiving a low rating on this dimension was expected to be resigned to the way things were. (There was not much that this person was perceived as doing or being able to do, for this person was not apt to want many changes to take place.) Adjectives found in this dimension were: progressive-old-fashioned; productive-unproductive; busy-idle; strong-weak; healthy-unhealthy; active-passive; expectant-resigned; liberal-conservative; aggressive-defensive.

The autonomuous-dependent (Autonomy) dimension analyzed whether the person was depicted as contributing in some way to the system in which he/she lived or whether he/she was more inclined to need the system's help. In other words, a low rating on this dimension meant that the person was viewed as insecure, dependent, poor and indecisive, thereby becoming more of a burden than an asset to society. The adjectives used to measure these behaviors were: consistent-inconsistent; independent-dependent; rich-poor; secure-insecure; satisfied-dissatisfied; organized-disorganized; self-reliant-dependent; certain-uncertain; decisive-indecisive.

A person rated highly on the third dimension, personal acceptability-unacceptability (Acceptability), would be perceived as very sociable and accepting of others. A low rating would reveal that person to have rather unpleasant characteristics such as being unfriendly, intolerant, or dull. In order to assess how a person fit into the social setting, this dimension included the following adjectives: generous-selfish; handsome-ugly; cooperative-uncooperative; optimistic-pessimistic; flexible-inflexible; hopeful-dejected; happy-sad; friendly-unfriendly; neat-untidy; trustful-suspicious; tolerant-intolerant; pleasant-unpleasant; ordinary-eccentric; exciting-dull.

Employing the same randomization approach as that used to obtain the 18 elderly in sequences, an additional sample of programs was randomly selected for evaluation by four different groups of raters: two sequences portraying an adult; three sequences portraying a child; three sequences portraying an elderly person, and three sequences portraying a child interacting with an elderly person.

Each of the four groups of raters also used the "Aging Semantic Differential" to evaluate the behaviors of the children or elderly persons in the given sequences. All raters evaluated the two sequences in which adults were depicted.

Raters of the edited program sequences were students attending classes in the College of Education at the University of Maryland during the summer session, 1978. All viewing of the videotaped sequences was done in classrooms using television monitors. All sequences were shown to raters in black and white, to avoid problems of consistency, because some programs were originally broadcast in color while others were broadcast in black and white.

Semantic differential rating sheets were distributed, and prior to the viewing of the videotaped sequences, the following instructions were read to each group of raters:

> "You are about to see a short, videotaped sequence in which several persons appear. Upon completion of the sequence you will be rating and giving an age estimate for one of the persons in his or her role. Write this person's name (or description) on the rating sheet, (character name or description given). Please take a moment now to read the directions on the rating sheet. Are there any questions? Please do not begin rating until the sequence is completed. Write your estimate of the person's age in the top right-hand corner of the rating sheet. Since the sequence is very brief, and you will see it only once, it is essential that you pay particular attention to the person identified in his/her role, (character name or description)."

Statistical Treatment

A number of statistical procedures were utilized in an analysis of the data, documenting the extent to and manner in which the elderly were portrayed in the sample of programs randomly selected, taped, and rated. Appropriate statistical techniques were applied to data obtained from the content analysis and the semantic differential.

Content Analysis

A content analysis was employed to gather information which could be used to answer Questions one, two, and three and part of Question five. The content analysis provided data, enabling frequency counts to be made. Frequencies and percentages were obtained indicating the extent to and manner in which the elderly persons were portrayed in the programs sampled.

Chi-square analyses further revealed the level of association of the variables cross-tabulated with the sex, age, and race of the elderly persons appearing in the programs. The chi-square statistical procedure is appropriate for use in analyzing categorical data such as that produced by a content analysis.

Semantic Differential Analysis

The semantic differential (SD) was utilized to examine the manner in which the elderly were portrayed in the sequences sampled. More specifically, the SD was used to help answer Questions four and five which deal with the behaviors exhibited by the elderly in the sequences and the types of child/elderly interactions that took place.

Scores from the semantic differential were analyzed using several statistical techniques. Means and standard deviations were obtained on each of the three dimensions for the person rated. To determine if the difference between the means for persons of the same and different age groups was significant, an analysis of variance for a one-way design was computed. A Student-Newman-Keuls procedure was then applied to test pairwise contrasts to reveal where the differences became significant.

In addition, a generalizability analysis was performed so that the representativeness of the sample of social objects (persons) could be assessed. The analysis provided estimated score and variance components for a set of social objects, raters, and items. Further calculations revealed the extent to which the estimated standard error of the means would be affected by increasing or decreasing the sample of programs. The design for the generalizability analysis used for the sample of social objects (P), raters (B) and items on the semantic differential (A) was: A x (B:P) (two facets) - responses on different levels of B for each person. (See Appendix F for further information on designs.)

PRESENTATION AND ANALYSIS OF DATA

The purpose of this study was to examine the extent to and manner in which the elderly were portrayed in a random sample of television programs aired during prime time and Saturday morning children's programming. The sample of programs to be analyzed consisted of 65 half-hour segments from the evening hours between 7:30 p.m. and 10:00 p.m. and 20 half-hour segments from the 8:00 a.m. to 12:00 p.m. time slots on Saturday mornings. From this sample another random sample depicting elderly persons, children and adults was selected to be further evaluated by groups of raters using the semantic differential.

Both a content analysis and a semantic differential were employed to help in finding answers to the following questions:

1. How frequently did the elderly appear during evening and children's Saturday morning television programs?
   a) Were they proportionately represented?
   b) How frequently were elderly men, women and minorities presented?
   c) What proportion of the programs presented children, adults and elderly persons?
   d) How frequently were children presented in interactions with elderly persons?
2. In what roles were the elderly portrayed?
   a) Were these achieved or ascribed?
   b) Were these major or minor?
   c) Were these of lower, middle, or upper socio-economic status?

3. In what occupations were the elderly engaged?
   a) Were these full-time or part-time occupations?
   b) What occupational prestige ranking did the work performed by the elderly represent?
4. What types of behaviors did the elderly exhibit?
   a) what degree of effectiveness did they exhibit in their behavior?
   b) What degree of autonomy did they exhibit in their behavior?
   c) What degree of acceptability did they exhibit in their behavior?
   d) Did the elderly behaviors differ significantly?
5. What types of child/elderly interactions took place?
   a) Were these within or outside the family structure?
   b) Were these active or passive interactions?
   c) Were these "doing for" types of interactions?
   c) Was the elderly person's behavior different in comparison to the younger person's behavior?

The content analysis employed to gather data for Questions 1, 2, 3 and parts a, b, c of Question 5 allowed frequencies to be tabulated and the chi-square statistical procedure to be utilized. Question 4 and part d of Question 5 were answered with the help of the semantic differential from which means and standard deviations were obtained for the Effectiveness, Autonomy, and Acceptability dimensions. A one-way analysis of variance was further used to determine whether there were significant differences between the means for various people. A generalizability analysis was also conducted to determine the extent to which the sample of persons selected was representative of the total population available.

Content Analysis

The content analysis provided data from which frequency tabulations were calculated pertaining to a number of variables and their levels of association. Because the nature of the programs sampled from the evening time slots differed from those in the Saturday morning time periods, each will be discussed separately.

Evening Programs

Question 1

Table 5 presents the proportion of the total sample of 65 programs in which children, adults, elderly and child/elderly interactions appeared. As indicated, adults were in all of the shows, whereas the elderly were in slightly more than half of the programs. Child/elderly interactions, by far, faired the worst, appearing in only 6% of the programs.

Table 5

Percentage of Programs Sampled Presenting Elderly, Adults, Children and Child/Elderly Interactions*

Group	# of Shows	% of Sample
Elderly	34	52
Adults	65	100
Children	14	21
Child/Elderly Interactions	4	6

*Total sample of 65 programs

Frequency counts revealed a total number of 59 persons over 60 years of age. Of these, 31 (52.5%) were between the ages of 60 and 64, 16 (27.1%)

between 65 and 69, 5 (8.5%) between 70 and 74, and 7 (11.9%) were over 75 years of age.

Further analysis indicated that although approximately equal numbers of programs were sampled from the CBS, ABC, and NBC networks (22, 23, and 20 programs respectively), the number of elderly persons portrayed on each network varied widely. The CBS network and its local affiliate presented more than half (55.9%) of the elderly sampled. The NBC network accounted for only 23.7% of the elderly, followed by ABC with 20.3%. It should be noted, however, that the Candid Camera show, broadcast on the CBS affiliate, was randomly selected three times and contained 11 (18.6%) of the elderly persons sampled.

Of the total sample, 51 (86.4%) of the elderly persons were men, while only 8 (13.6%) were women. These figures do not reflect the real world where approximately 59% of the elderly population consists of women. The sex of the elderly person was significantly associated with several variables to be discussed later in this section.

Of the total number of elderly persons appearing in the evening programs, 55 (93.2%) were white, while only 4 (6.8%) were black. In the real world the elderly black population comprises approximately 8% of the total elderly population, not that far removed from the percentage shown in this sample. There were, however, no other elderly minorities presented on any of the programs taped.

The variable of race, although there were only two races portrayed, was found to be significantly associated only with the network. Although small cell sizes presented some problems for the chi-square analysis, with only 4 blacks in the total sample, this could not be avoided. As indicated in Table 6, there were no elderly blacks portrayed on the ABC network, three on NBC, and one on CBS.

Table 6

Frequency and Percentage Distribution of Persons by Race and Network

	Network						
Race	ABC		NBC		CBS		Total
	Freq.	%	Freq.	%	Freq.	%	
White	12	21.8	11	20.0	32	58.2	55
Black	0	.0	3	75.0	1	25.0	4
Total	12		14		33		59

$\chi 2 = 6.360$, $\underline{df} = 2$, $\underline{C} = .31$, $\underline{p} < .042$

Although children, between the ages of three and twelve, were presented in 21% of the shows examined, the figures changed radically when tabulating the number of shows in which children and elderly interacted. Of the total 65 shows, only four portrayed children and elderly interacting, and three of the four were on Candid Camera. Of the 59 elderly persons presented, 55 or 93.2% did not engage in any interaction with a child, whereas 4 (6.8%) were found to interact in some way with at least one child.

Question 2

The elderly persons appearing on the programs sampled were more often portrayed in minor roles than in major roles. Although the distinction was not that great, with 35 (59.3%) in minor roles compared to 24 (40.7%)

in major roles, it became significantly noticeable when looking at the association of role with age group, as indicated in Table 7.

Table 7 presents the frequency and percentage distribution of elderly persons of different age groups who were portrayed either in major or minor roles. The table reveals that while more age groups were associated with minor roles, those elderly in the age group over 75 were more likely to be portrayed in major roles ($\chi^2 = 8.420$ df = 3, C = .35, $p < .038$). Although the percentages for the 60 to 64 year old age group were not very large in either direction, they were still more likely, a probability of .581, to be portrayed in minor roles.

Table 7

Frequency and Percentage Distribution of Persons
by Age Group and Role

Age Group	Role: Major Freq.	Major %	Minor Freq.	Minor %	Total
60 to 64	13	41.9	18	58.1	31
65 to 69	4	25.0	12	75.0	16
70 to 74	1	20.0	4	80.0	5
75 plus	6	85.7	1	14.3	7
Total	24		35		59

$\chi^2 = 8.420$, df = 3, C = .35, $p < .038$

Roles were also analyzed on the basis of whether they were achieved or ascribed. Of the 59 elderly persons, 38 (64.4%) were portrayed in achieved roles, those roles acquired on the basis of performance or skills. Ascribed roles, designated as those positions attained because of possession of certain attributes such as age or seniority, were held by 21 (35.6%) of the elderly.

As indicated in Table 8 , sex of the elderly person was significantly associated with type of role. Elderly women were more associated with ascribed roles than were the elderly men ($\chi^2 = 8.416$, $\underline{df} = 1$, $\underline{C} = .39$, $\underline{\rho} < .004$). The percentage distribution revealed that the probability of a woman being portrayed in an ascribed role was .875, while the probability for a man was .275. The coefficient of contingency was calculated as .39, indicating a degree of association significantly different from zero.

Table 8

Frequency and Percentage Distribution of Persons by Sex and Role

Sex	Role				Total
	Ascribed		Achieved		
	Freq.	%	Freq.	%	
Female	7	87.5	1	12.5	8
Male	14	27.5	37	72.5	51
Total	21		38		59

$\chi^2 = 8.416$, $\underline{df} = 1$, $\underline{C} = .39$, $\underline{\rho} < .004$

In completing the data on roles, frequency counts indicated that for the elderly population sampled, the largest number, 26 (44.1%), were classified as of middle socio-economic status (SES), 17 (28.8%) were of lower SES, and 16 (27.1%) were of upper SES. Socio-economic status was significantly associated with the variable of sex, as indicated in Table 9. It was found that women were more likely to be associated with being of lower SES than were elderly men. In addition, there were no women in the upper SES.

Table 9

Frequency and Percentage Distribution of Persons by Sex and Socio-economic Status

Sex	Socio-economic Status						Total
	Lower		Middle		Upper		
	Freq.	%	Freq.	%	Freq.	%	
Female	5	62.5	3	37.5	0	.0	8
Male	12	23.5	23	45.1	16	31.4	51
Total	17		26		16		59

$\chi^2 = 6.245$, $\underline{df} = 2$, $\underline{C} = .31$, $\underline{p} < .044$

Question 3

Of the elderly appearing in the evening programs sampled, 18 (30.5%) were in occupations classified as professional/technical in nature. On the other hand, it was impossible to determine the occupations of 16 (27.1%), either because there were indications that they were employed without reference to the type of work, or because it was never determined that they were not in the labor force. While 6 (10.2%) of the elderly were in occupations which could not be classified using the Treiman index, 5 (8.5%)

were portrayed in criminal occupations. This latter figure ranked fourth among the types of occupations in which the elderly were portrayed.

Although sex was significantly associated with type of occupation, the large number of categories and small cell numbers made it difficult to do other than report the findings in descriptive terms. It was noticed that of the eight elderly women, 5 were listed in the unknown category of occupation, 2 were not in the labor force and only 1 was portrayed in a sales occupation. Most of the elderly men were working, with 18 of the 51 in professional/technical occupations, and none in sales. On the other hand, there were no women criminals, whereas 5 of the elderly men were portrayed in criminal roles.

Frequency tabulations for the occupational prestige ratings of the elderly indicated that more than half (52.5%) were either in occupations for which the rating could not be determined or were not employed. The next largest percentage, 22%, was found in the high-prestige professional/technical category. Looking at the ratings in terms of high and low-prestige occupations, it was revealed that 17 (28.8%) of the elderly were in high-prestige occuations compared to 9 (15.3%) in low-prestige occupations.

The elderly person's occupational role was also categorized as being full-time, part-time, or undetermined. Of the total sample, 37 (62.7%) were in full-time positions, 7 (11.9%) in part-time occupations and 15 (25.4%) undetermined. The only variable significantly associated with job status was sex. Table 10 indicates that the probability of being an elderly female in a full-time job was .250 compared to .686 for an elderly male. In addition, 5 or 62.5% of the women were in the undetermined category, while only 10 (19.6%) of the men were so classified.

Table 10

Frequency and Percentage Distribution of Persons by Sex and Job Status

Sex	Job Status						Total
	Full Time		Part Time		Undetermined		
	Freq.	%	Freq.	%	Freq.	%	
Female	2	25.0	1	12.5	5	62.5	8
Male	35	68.6	6	11.8	10	19.6	51
Total	37		7		15		59

$\chi^2 = 7.106$, $df = 2$, $C = .33$, $p < .028$

Question 5

The first three parts of this question, which refer to child/elderly interactions, were answered with the data provided by the content analysis. As mentioned previously, three of the four child/elderly interactions took place on the Candid Camera show. In each of these instances, the interaction consisted of the host, Allen Funt, interviewing a child. These interactions were outside the family structure, were passive in nature, and in only one segment was there a "doing for" type of interaction, where Mr. Funt gave advice to a child.

In the fourth situation a little girl was with her uncle and another man. Initially they were shown riding on a roller coaster, with the elderly uncle riding beside the child. The following scene showed them on the ground talking. Taking the context of the entire segment into consideration, it appeared appropriate to suggest that the interaction was within the family structure, active in nature with the uncle doing something for the child by taking her to the park.

Saturday Morning Programs

Question 1

Twenty half-hour time segments were randomly selected and analyzed on the basis of the categories listed in the content analysis. Table 11 presents the proportion of the total sample of programs, in which children, adults, elderly, and child/elderly interactions appeared. The frequency counts revealed that 13 (65%) of the shows portrayed elderly persons, for a total of 23 elderly persons. It was also revealed that all shows contained adults. On the other hand, only two (10%) of the shows presented children, aged 3-12, and there were no shows with child/elderly interactions.

Table 11

Percentage of Programs Sampled Presenting Elderly, Adults, Children and Child/Elderly Interactions*

Group	# of Shows	% of Sample
Elderly	13	65
Adults	20	100
Children	2	10
Child/Elderly Interactions	0	.0

* Total sample of 20 programs

Of the total sample of elderly persons, ten were 60 to 64 years of age, six were 65 to 69, five were 70 to 74, and only two were over the age of 75. Age group was not found to be significantly associated with any of the variables.

The elderly sample was almost evenly distributed among the three networks, ABC, NBC, and CBS with NBC slightly ahead portraying 39% of the elderly. It should be noted that of the twenty time segments, only one portrayed a real-life person over the age of 60. The remaining programs depicted elderly animated characters.

Of the total sample, 20 (87%) of the elderly were males, while only 3 (13%) were females. Sex was found to be significantly associated with the variables of occupation and rank to be discussed later. Because of the small number of women, however, it is only appropriate to report the findings in descriptive terms.

There were no races other than white represented in the twenty programs. It was, therefore, evident that there were no other minority groups represented.

Children were also under-represented. Children, animated and real-life, aged 3-12, were depicted in only three of the 20 programs. In addition, there were no child/elderly interactions on any of the programs.

Question 2

Of the total sample of elderly persons, 14 (60.9%) were portrayed in minor roles compared to 9 (39.1%) in major roles. In terms of achieved and ascribed roles, 20 (87%) of the elderly were presented in achieved roles, while only 3 (13%) were in ascribed roles. It should be noted that the three women were all depicted in achieved roles, whereas 17 (85%) of the elderly men were portrayed in achieved roles.

Socio-economic status (SES) of the elderly persons was not skewed in any one direction. Nine (39.1%) of the elderly were in the lower SES, 8 (34.8%) in the middle SES, and 6 (26.1%) in the upper SES. There were no women in either the middle or upper levels, while men were almost evenly distributed among the three levels.

Question 3

Of the total sample of elderly persons, 5 (21.7%) were categorized in the professional/technical occupational scale, 4 (17.4%) were designated in the agricultural field, another 4 (17.4%) were unclassifiable, 3 (13%) service workers, and 2 (8.7%) each in the categories labeled as unknown and crime occupation.

It was found that two of the women were in clerical related occupations, with the remaining one woman being in a crime occupation. On the other hand, there were no men in clerical positions and only 1 man of the 20 elderly men was in a crime occupation.

Occupational prestige ratings, when examined in terms of high and low-prestige, indicated that while most elderly (39.1%) had high-prestige occupations, 26% had low-prestige jobs, leaving 34.8% unable to be rated. There were no women found in jobs of high-prestige.

Of the sample of elderly persons, 21 (91.3%) were employed on a full-time basis, while the job status of 2 persons could not be determined. There were no elderly persons in part-time positions. All of the women were employed full time in comparison to 18 (90%) of the elderly men.

Question 5

Of the total (20) programs sampled, there were no child/elderly interactions. For this reason there are no data available for the first three parts of this question.

Semantic Differential Analysis

Data collected from the semantic differential were analyzed employing several statistical techniques. Means and standard deviations were calculated on the Effectiveness, Autonomy, and Acceptability dimensions for each person of the three age groups (child, adult, elderly) represented. A one-way analysis of variance was performed to determine if any of the means for persons of the same and other age groups were significantly different. A Student-Newman-Keuls procedure was subsequently applied to test the difference between all pairs of means and show where the differences became significant.

Scores from the semantic differential were further utilized in a generalizability analysis for the purpose of assessing the representativeness of the sample of social objects. This analysis revealed to what extent the sample of persons (social objects) was representative of the population of persons shown on television programs aired during prime time.

Characters from the Saturday morning time slots were not included in the semantic differential analysis. The different nature of the programs, with only one real-life person over the age of sixty, only three women over 60, no blacks, and no child-elderly interactions created problems that would have limited results from a semantic differential analysis.

Question 4

The "Aging Semantic Differential" (Rosencranz & McNevin, 1969) was used to rate the behaviors exhibited by 18 elderly persons randomly selected from the total of 59 elderly persons found in the programs taped. This instrument consists of three dimensions, each containing bi-polar sets of adjectives descriptive of attributes or behavioral characteristics of the persons or social objects being rated.

The Effectiveness and Autonomy dimensions each consist of 9 sets of bi-polar adjectives on seven point scales. Therefore, the mean for each dimension would be 36 (9 for the number of adjectives times 4, the mid-point on the scale). If a person's mean dimension score was more than 36, it would indicate that the person's behaviors were of a favorable nature. A dimension mean score of less than 36 would suggest behaviors heading in a more negative direction.

The Acceptability dimension, consisting of 14 sets of bi-polar adjectives, would have a mean dimension score of 56, obtained in the same manner as described above. Persons receiving a mean score greater than 56 on this dimension would be perceived as exhibiting social behaviors of a positive nature. Mean scores of less than 56 would indicate that the person's social behaviors were negative.

Table 12 presents means on the three dimensions for the 18 elderly persons evaluated by six groups of raters using the "Aging Semantic Differential". Each group rated three elderly persons who were randomly selected and assigned to them for rating. The order in which they appear in the table is the order in which they were analyzed by the ANOVA, with persons numbered 1-6 each randomly chosen from the six groups. The same method was applied for persons numbered 7-12 and 13-18.

An examination of Table 12 shows that for the Effectiveness dimension, there were three people who fell below the mid-point as compared to 15 above. The lowest mean score on this dimension was 27.882 received by Mr. Lujak (13) and the highest mean score a 51.474 for Bob Hope (12). It should be noted that the highest score did not reach the mean score (54) for the sixth point on the scale. The dimension mean for the 18 elderly on the seven point scale was found to be located at 4.635, an indication that, on the average, the elderly were rated to be only slightly above the mid-point on the scale or slightly positive. (See Table 50 p. 87.) for scale means.)

Table 12 also presents mean scores on the Autonomy dimension for the 18 elderly. In this case there were only two persons (13 & 14) who fell below the mid-point of 36. These same two persons received low scores on the Effectiveness dimension. Although scores on the whole appeared to be higher for this dimension, the highest being Bob Hope (12) with 55.263, the dimension mean for the scale turned out to be only slightly higher (4.890) than for the Effectiveness dimension (4.635). (See Table 50 p. 87.)

The mean scores for the Acceptability dimension as shown in Table 12 have larger values because of the 14 adjectives in this dimension. Contrary to appearances, however, there were more persons who were rated below the mid-point (56) in this dimension than in either of the other two dimensions. A total of seven elderly received less than average ratings, revealing some-what negative behaviors portrayed by them in their roles. The mean scores for persons on this dimension ranged from a low of 42.529 for the desk clerk (7) to a high of 81.292 for Bing Crosby (6). The scale mean (4.549) for this dimension was lower than the scale mean for either the Effectiveness or Autonomy dimensions. (See Table 50 p. 87.)

In order to determine the degree of association between the rank order of the elderly behaviors on the three dimensions, a Spearman

Rank-Correlation Coefficient was computed. This method indicated whether an elderly person, ranked low or high on one dimension, would have a similar ranking on the other dimensions. At the bottom of Table 12, these correlation coefficients are presented for the ranks. As presented, there was a significantly positive relationship between the order in which the elderly behaviors were ranked on each of the three dimensions.

An analysis of variance for one-way design was computed in order to determine if any of the elderly behaviors differed significantly. The elderly were analyzed in groups of six, as previously explained. (See Appendix H for the analysis of variance summary tables.) For purposes of identification, the three groups (six elderly in each) were labeled Subgroups 1, 2, and 3. Subgroup 1 consisted of elderly persons numbered 1-6 as listed in Table 12, Subgroup 2, #'s 7-12, and Subgroup 3, #'s 13-18. The numbers also corresponded to the numbers used in the Student-Newman-Keuls Tables.

An examination of the analysis of variance summary tables in Appendix H revealed that the behaviors of the elderly within each subgroup were significantly different for each dimension. Therefore, it was necessary to apply the Student-Newman-Keuls technique to all cases in order to determine where the differences lay. This final step provided information that would allow for further interpretation of role differences in making concluding statements.

The one-way analysis of variance computed for the elderly behaviors of Subgroup 1 on the Effectiveness dimension yielded an F value (df = 15, 93) of 2.250 ($p < .010$). The results indicate that for these six

Table 12

Dimension Mean Scores and Rank for Elderly Behaviors

Person*	Effectiveness Mean Scores Dimension	Effectiveness Mean Scores Scale	Effectiveness Rank	Autonomy Mean Scores Dimension	Autonomy Mean Scores Scale	Autonomy Rank	Acceptability Mean Scores Dimension	Acceptability Mean Scores Scale	Acceptability Rank
1. Mr. Jamison	36.89	4.10	15	37.33	4.15	15	53.50	3.82	14
2. Woman in Hat Stand	37.33	4.15	14	41.47	4.61	12	47.73	3.41	16
3. Dr. Brinkman	43.27	4.81	9	51.07	5.67	4	51.73	3.69	15
4. Colonel Potter	44.58	4.95	8	47.58	5.29	9	68.53	4.89	8
5. Dr. Bailor	46.56	5.17	5	52.11	5.79	3	58.78	4.20	11
6. Bing Crosby	47.46	5.27	3	53.71	5.97	2	81.29	5.81	1
7. Desk Clerk	38.18	4.24	13	40.41	4.49	13	42.53	3.04	18
8. Bert the Barber	38.56	4.28	12	41.81	4.65	11	66.75	4.77	9
9. Barney	39.70	4.41	11	44.35	4.93	10	66.65	4.76	10
10. Leo Kahn	40.53	4.50	10	37.79	4.20	14	54.53	3.90	13
11. Female Senior Citizen	47.12	5.24	4	49.78	5.53	5	78.91	5.64	3
12. Bob Hope	51.47	5.72	1	55.26	6.14	1	79.68	5.69	2
13. Mr. Lujak	27.88	3.10	18	26.06	2.90	18	47.47	3.39	17
14. Taste Tester	35.56	3.95	17	29.17	3.24	17	72.72	5.19	6
15. Jack	35.79	3.98	16	36.89	4.10	16	56.21	4.02	12
16. Grandpa Walton	45.52	5.06	7	48.61	5.40	8	73.35	5.24	5
17. Allen Funt	46.32	5.17	5	49.37	5.49	7	73.58	5.26	4
18. Chimp Trainer	48.12	5.35	2	49.47	5.50	6	72.53	5.18	7

*See Appendix I for role descriptions of the elderly persons listed above.

Spearman Rank Correlations were run on the above and revealed that the rank order for the elderly on the three dimensions were significantly correlated. See figures below:

Elderly Ranked on Effectiveness and Autonomy Dimension $r_s = .92$ $p < .01$
Elderly Ranked on Effectiveness and Acceptability Dimension $r_s = .69$ $p < .01$
Elderly Ranked on Acceptability and Autonomy Dimension $r_s = .59$ $p < .02$

elderly the behaviors on this dimension were significantly different. In addition, results from the Student-Newman-Keuls procedure, as presented in Table 13, show that Mr. Jamison (1) and the Woman in Hat Stand (2) were rated significantly lower on the Effectiveness dimension than Dr. Brinkman (3), Colonel Potter (4), Dr. Bailor (5), and Bing Crosby (6). There were no significant differences between #'s 3, 4, 5, or 6.

Significant differences also existed between the elderly behaviors on the Autonomy dimension, with the ANOVA yielding an F value (df = 15, 93) of 9.383 (p < .000). The Student-Newman-Keuls method explained these differences as evidenced in Table 14. Once again, Mr. Jamison and the Woman in Hat Stand were rated significantly lower than the other four elderly persons. Colonel Potter, on the other hand, was rated only lower than Bing Crosby. Persons numbered 3, 5, and 6 were not significantly different from each other.

Elderly behaviors on the Acceptability dimension for Subgroup 1 were found to be significantly different. The analysis of variance yielded an F value (df = 15, 93) of 6.332 (p < .000). An examination of the results from the Student-Newman-Keuls procedure, presented in Table 15, shows that Bing Crosby (6) was rated significantly higher than all other elderly in this group. Colonel Potter (4) was rated significantly higher on this dimension than all other elderly except Crosby. Dr. Bailor (5) was rated only significantly higher than the Woman in Hat Stand (2), and persons 1, 2, and 3 were not significantly different from each other.

Table 13

Summary of Student-Newman-Keuls with Mean Scores on Effectiveness Dimension for Elderly Behaviors - Subgroup 1

Elderly	1	2	3	4	5	6	$\bar{X}$
1			*	*	*	*	36.889
2			*	*	*	*	37.333
3	*	*					43.267
4	*	*					44.579
5	*	*					46.556
6	*	*					47.458

*Difference significant at the .05 level

Table 14

Summary of Student-Newman-Keuls with Mean Scores on Autonomy Dimension for Elderly Behaviors - Subgroup 1

Elderly	1	2	3	4	5	6	$\bar{X}$
1			*	*	*	*	37.333
2			*	*	*	*	41.467
4	*	*				*	47.579
3	*	*					51.067
5	*	*					52.111
6	*	*		*			53.708

*Difference significant at the .05 level

Table 15

Summary of Student-Newman-Keuls with Mean Scores on Acceptability Dimension for Elderly Behaviors - Subgroup 1

Elderly	1	2	3	4	5	6	$\overline{X}$
2				*	*	*	47.733
3				*		*	51.733
1				*		*	53.500
5		*		*		*	58.778
4	*	*	*		*	*	68.526
6	*	*	*	*	*		81.292

*Difference significant at the .05 level.

The behaviors of the six elderly persons comprising Subgroup 2 were analyzed in the same manner as those in Subgroup 1. The analysis of variance summary tables (Appendix H) reveal significant differences between the elderly on all three dimensions. The ANOVA yielded F values (df = 5, 117) of 10.400 on the Effectiveness dimension, 15.697 on the Autonomy dimension, and 55.436 on the Acceptability dimension ($p < .000$).

When the Student-Newman-Keuls procedure was applied, it was determined, as Table16 shows, that on the Effectiveness dimension, Bob Hope (12) was rated significantly higher than the other 5 elderly persons in this group. The Female Senior Citizen (11) was rated significantly higher than the Desk Clerk (7), Bert the Barber (8), Barney (9), and Leo Kahn (10). There were no significant differences between the behaviors of persons 7, 8, 9, and 10.

With one exception, the elderly behaviors on the Autonomy dimension differed in the same way as on the Effectiveness dimension. In Table 17 however, Barney (9) was rated significantly higher than Leo Kahn (10).

Results on the Acceptability dimension, presented in Table 18, show that persons 11 and 12 are still rated significantly higher than the others. Bert the Barber (8) and Barney (9) were more highly rated than the Desk Clerk (7) and Leo Kahn (10). The Desk Clerk was rated significantly lower than the other persons in Subgroup 2.

Table 16

Summary of Student-Newman-Keuls with Mean Scores on Effectiveness Dimension for Elderly Behaviors - Subgroup 2

Elderly	7	8	9	10	11	12	$\overline{X}$
7					*	*	38.176
8					*	*	38.563
9					*	*	39.700
10					*	*	40.526
11	*	*	*	*		*	47.125
12	*	*	*	*	*		51.474

*Difference significant at the .05 level.

Table 17

Summary of Student-Newman-Keuls with Mean Scores on Autonomy Dimension for Elderly Behaviors - Subgroup 2

Elderly	7	8	9	10	11	12	$\overline{X}$
10			*		*	*	37.789
7					*	*	40.412
8					*	*	41.813
9				*	*	*	44.350
11	*	*	*	*		*	49.781
12	*	*	*	*	*		55.263

*Difference significant at the .05 level

Table 18

Summary of Student-Newman-Keuls with Mean Scores on Acceptability Dimension for Elderly Behaviors - Subgroup 2

Elderly	7	8	9	10	11	12	$\overline{X}$
7		*	*	*	*	*	42.529
10	*	*	*		*	*	54.526
9	*			*	*	*	66.650
8	*			*	*	*	66.750
11	*	*	*	*			78.906
12	*	*	*	*			79.684

*Difference significant at the .05 level.

Results from the one-way analysis of variance that was computed for the third Subgroup show that significant differences were found between the elderly behaviors of the six individuals in this group also. F values (df = 5,107) of 22.842 on the Effectiveness dimension, 40.877 on the Autonomy dimension, and 23.613 on the Acceptability dimension (p < .000) were obtained. Further analysis using the Student-Newman-Keuls procedure indicated which elderly behaviors were significantly different.

Grandpa Walton (16), Allen Funt (17), and the Chimp Trainer (18) were rated significantly higher than persons 13, 14, and 15. The Taste Tester (14) and Jack (15) were rated significantly higher than Mr. Lujak (13) but lower than 16, 17, and 18. Mr. Lujak (13) was rated significantly lower than the others. (See Table 19).

The results, as presented in Table 20, differed slightly on the Autonomy dimension, with 16, 17, and 18 still rated significantly higher than the others. Jack (15) was again rated significantly higher than 13 and 14. This time, however, both 13 and 14 were rated significantly lower than the others.

Ratings of the elderly behaviors on the Acceptability dimension are given in Table 21. An examination of the findings indicates that while persons 14, 16, 17, and 18 did not differ significantly from each other, they were rated significantly higher than persons 13 and 15. In addition Jack (15) was rated significantly higher than Mr. Lujak (13).

Table 19

Summary of Student-Newman-Keuls with Mean Scores on Effectiveness Dimension for Elderly Behaviors - Subgroup 3

Elderly	13	14	15	16	17	18	X̄
13		*	*	*	*	*	27.882
14	*			*	*	*	35.556
15	*			*	*	*	35.790
16	*	*	*				45.522
17	*	*	*				46.316
18	*	*	*				48.118

*Difference significant at the .05 level.

Table 20

Summary of Student-Newman-Keuls with Mean Scores on Autonomy Dimension for Elderly Behaviors - Subgroup 3

Elderly	13	14	15	16	17	18	X̄
13			*	*	*	*	26.059
14			*	*	*	*	29.167
15	*	*		*	*	*	36.895
16	*	*	*				48.609
17	*	*	*				49.368
18	*	*	*				49.471

*Difference significant at the .05 level.

Table 21

Summary of Student-Newman-Keuls with Mean Scores on Acceptability Dimension for Elderly Behaviors - Subgroup 3

Elderly	13	14	15	16	17	18	$\bar{X}$
13		*	*	*	*	*	47.471
15	*	*		*	*	*	56.211
18	*		*				72.529
14	*		*				72.722
16	*		*				73.348
17	*		*				73.579

*Difference significant at the .05 level

Question 5

The "Aging Semantic Differential" was also employed to gather information on the behaviors of elderly persons in comparison to the behaviors of younger persons. Although the statistical techniques applied were the same as those used in Question 4, the samples were quite different.

The sample for this analysis consisted of: three elderly persons not appearing with children; three children not appearing with elderly persons; three children shown interacting with elderly persons; three elderly persons shown interacting with children; and two adults. All were randomly selected from the sample of shows in which they were presented.

The above were kept intact and randomly assigned to the four groups of raters. All four groups of raters evaluated both adults, so that some measure of group stability could be determined. A one-way analysis of variance was computed to determine whether there were any significant differences in the ways the same adult was rated by all four groups. If such differences occurred, it would indicate that some factor, not the person being rated, would be a possible threat to the accuracy of the results.

Mean scores on the dimensions were calculated for each person (social object). The results are presented in Tables 22, 23, and 24. The means were examined treating each age group separately and all groups together.

An examination of the way in which the elderly behaviors were rated revealed that only one person (1) received a rating below the midpoint on the scale on all three dimensions. In contrast, Allen Funt (6) received the highest rating on both the Effectiveness and Acceptability dimensions and was a close second to Bob Hope (5) on the Autonomy dimension. It is interesting to note that in terms of scale means on each dimension, the means for the elderly who appeared interacting with children were all higher than those for the elderly not appearing with children. The respective scale means for the Effectiveness, Autonomy, and Acceptability dimensions were 5.289, 5.433, 5.481, for the elderly appearing with children, in comparison to the dimension scale means of 4.679, 5.052, and 4.533 for the sample of elderly persons not appearing with children. (See Tables 47 & 48, p. 85 & 86.)

When examining the sample of children, however, the reverse appears to be true. Although the numbers for the dimension scale means did not vary to any great degree, they indicated that children appearing with the elderly were not rated lower on the scale of 1 to 7 than were the children not appearing with the elderly. Dimension scale means for the children appearing with the elderly were 5.082, 4.847, and 5.282 compared with 5.168, 4.982, and 5.709 for children not with elderly. (See Tables 46 & 49, p. 85 & 86.)

These findings were further clarified when the dimension mean scores for the children, as presented in Table 22, were examined. Two of the children (1 & 2) appearing with elderly had the lowest mean scores on all dimensions. The other child (6) appearing with an elderly person, however, received the highest rating on all but the Acceptability dimension.

Table 23 also shows that one adult (2) was rated higher than the other adult on all three dimensions. Scale means for the two adults were found to be 4.899 on the Effectiveness dimension, 4.959 on the Autonomy dimension, and 5.085 on the Acceptability dimension. It should be noted that on the seven point scale of the semantic differential no age group reached the sixth point, and no age group fell below the fourth or mid-point. This was not the case, however, with individuals from these groups.

These individual differences were further analyzed using a one-way analysis of variance. A number of different comparisons were made so that Question 5 could be answered completely. All ANOVA summary tables are located in Appendix H. An examination of these tables revealed that there were a number of significant differences between individuals. To pinpoint these differences, the Student-Newman-Keuls procedure was applied, testing pairwise contrasts.

Table 22

Dimension Mean Scores and Rank for Child Behaviors

	Effectiveness			Autonomy			Acceptability		
	Mean Scores			Mean Scores			Mean Scores		
Person	Dimension	Scale	Rank	Dimension	Scale	Rank	Dimension	Scale	Rank
. Young Girl*	42.79	4.75	6	40.48	4.50	6	71.90	5.14	5
2. Young Boy*	43.74	4.86	5	42.00	4.67	5	71.52	5.11	6
. Elizabeth	43.81	4.87	4	42.14	4.68	4	82.57	5.90	1
. Young Boy	46.56	5.17	3	45.25	5.03	3	78.00	5.57	4
. Penny	49.17	5.46	2	47.11	5.23	2	79.22	5.66	2
. Eric*	50.67	5.63	1	48.39	5.38	1	78.45	5.60	3

*Appearing in interaction with an elderly person

Table 23

Dimension Mean Scores and Rank for Adult Behaviors

	Effectivensss			Autonomy			Acceptability		
	Mean Scores			Mean Scores			Mean Scores		
Person	Dimension	Scale	Rank	Dimension	Scale	Rank	Dimension	Scale	Rank
1. Schneider	42.89	4.76	2	42.27	4.70	2	69.21	4.94	2
2. Tom Kennedy	45.31	5.03	1	47.00	5.22	1	73.18	5.23	1

Table 24

Dimension Mean Scores and Rank for Elderly Behaviors

	Effectiveness			Autonomy			Acceptability		
	Mean Scores			Mean Scores			Mean Scores		
Person	Dimension	Scale	Rank	Dimension	Scale	Rank	Dimension	Scale	Rank
1. Pop	33.22	3.69	6	34.56	3.84	6	44.96	3.21	6
2. Uncle Cleaver*	42.53	4.73	5	44.35	4.93	5	75.59	5.40	2
3. Colonel Potter	45.00	5.00	4	48.89	5.43	4	70.42	5.03	5
4. Allen Funt*	47.76	5.31	3	49.72	5.52	3	74.56	5.33	4
5. Bob Hope	48.11	5.34	2	52.96	5.88	1	75.00	5.36	3
6. Allen Funt*	52.53	5.84	1	52.63	5.85	2	80.05	5.72	1

*Appearing in interaction with a child

The one-way analysis of variance, computed for the behaviors of the elderly appearing with children and the elderly not appearing with children, yielded F values (df = 8,131) of 12.629 on the Effectiveness dimension, 12.799 on the Autonomy dimension, and 18.238 on the Acceptability dimension ($p < .000$). Tables 25,26, and 27 show where these differences occurred for each dimension.

Table 25 indicates that Allen Funt (6) was not rated significantly higher on the Effectiveness dimension than Allen Funt (4) (portrayed in a different sequence) or Bob Hope (5), but he was significantly higher than Pop (1), Uncle Cleaver (2), and Colonel Potter (3). Social objects (persons) 4 and 5 were rated significantly different only from person 1. Persons 2 and 3 were significantly different from both persons 1 and 6, rated higher than 1 but lower than 6. Person 1 (Pop) was rated significantly lower than all other elderly persons.

Ratings for the elderly on the Autonomy dimension, as presented in Table 26, show that Pop (1) was again rated significantly lower than the other 5 persons. Person 2 (Uncle Cleaver) was rated significantly higher than person 1 yet lower than Bob Hope (5) and Allen Funt (6). Colonel Potter (3) and Allen Funt (4) differed significantly only from person 1, while persons numbered 5 and 6 differed significantly from persons 1 and 2.

Table 27 presents the results of the Student-Newman-Keuls procedure for the elderly on the Acceptability dimension. As indicated, there was only one significant difference--Pop (1) was rated lower than the other elderly persons included in the sample.

Table 25

Summary of Student-Newman Keuls with Mean Scores on Effectiveness Dimension for Elderly

Elderly	1	+2	3	+4	5	+6	X̄
1		*	*	*	*	*	33.222
+2	*					*	42.259
3	*					*	45.000
+4	*						47.760
5	*						48.115
+6	*	*	*				52.526

* Difference significant at the .05 level
+ Elderly appearing with children

Table 26

Summary of Student-Newman Keuls with Mean Scores on Autonomy Dimension for Elderly

Elderly	1	+2	3	+4	5	+6	X̄
1		*	*	*	*	*	34.556
+2	*				*	*	44.353
3	*						48.885
+4	*						49.720
+6	*	*					52.632
5	*	*					52.961

* Difference significant at the .05 level
+ Elderly appearing with children

Table 27

Summary of Student-Newman-Keuls with Mean Scores on Acceptability Dimension for Elderly

Elderly	1	+2	3	+4	5	+6	$\overline{X}$
1		*	*	*	*	*	44.963
3	*						70.423
+4	*						74.560
5	*						75.000
+2	*						75.588
+6	*						80.053

*Difference significant at the .05 level
+Elderly appearing with children

When an analysis of variance was computed for the behaviors of elderly persons appearing with children, significant differences were found on two of the dimensions. This analysis yielded F values (df = 2,58) of 9.113 on the Effectiveness dimension ($p < .0$[illegible]) and 5.972 on the Autonomy dimension ($p < .005$).

Table 28 presents the findings from the Student-Newman-Keuls procedure on the Effectiveness dimension. It indicates that Uncle Cleaver (2), Allen Funt (4), and Allen Funt (6) were all significantly different from each other. Allen Funt (6) was rated significantly higher than persons 2 and 4, and person 4 was significantly higher than person 1.

Table 29 shows that these differences change somewhat on the Autonomy dimension. As indicated, Allen Funt (6) was rated significantly higher than person 2 (Cleaver) only. The same was true for Allen Funt (4). On the Acceptability dimension, however, there were no significant differences between the elderly.

Table 28

Summary of Student-Newman-Keuls with Mean Scores on Effectiveness Dimension for Elderly Appearing with Children

Elderly	2	4	6	$\bar{X}$
2	*	*	*	42.529
4	*		*	47.760
6	*	*		52.526

*Difference significant at the .05 level

Table 29

Summary of Student-Newman-Keuls with Mean Scores on Autonomy Dimension for Elderly Appearing with Children

Elderly	2	4	6	$\bar{X}$
2		*	*	44.353
4	*			49.720
6	*			52.632

*Difference significant at the .05 level

The one-way analysis of variance that was computed for the behaviors of elderly persons not appearing with children yielded *F* values (*df* = 2,76) of 30.722 on the Effectiveness dimension, 39.798 on the Autonomy dimension and 44.698 on the Acceptability dimension ($p < .000$). Tables 30, 31, and 32 reveal the same finding for all three dimensions. While Colonel Potter (3) and Bob Hope (5) did not differ significantly from each other, they differed from Pop (1) in that they were rated significantly higher.

Table 30

Summary of Student-Newman-Keuls with Mean Scores on Effectiveness Dimension for Elderly Not Appearing with Children

Elderly	1	3	5	$\bar{X}$
1		*	*	33.222
3	*			45.000
5	*			48.115

*Difference significant at the .05 level

Table 31

Summary of Student-Newman-Keuls with Mean Scores on Autonomy Dimension for Elderly Not Appearing with Children

Elderly	1	3	5	$\bar{X}$
1		*	*	34.556
3	*			48.885
5	*			52.962

*Difference significant at the .05 level

Table 32

Summary of Student-Newman-Keuls with Mean Scores on Acceptability Dimension for Elderly Not Appearing with Children

Elderly	1	3	5	$\bar{X}$
1		*	*	44.963
3	*			70.423
5	*			75.000

*Difference significant at the .05 level

Differences between all children, whether or not they appeared with elderly persons, were analyzed using the one-way analysis of variance. For the Effectiveness dimension an $\underline{F}$ value ($\underline{df}$ = 9,138) of 3.953 ($\underline{p} < .000$) was obtained; for the Autonomy dimension an $\underline{F}$ value of 3.242 ($\underline{p} < .001$); for the Acceptability dimension an $\underline{F}$ value of 2.739 ($\underline{p} < .006$).

Further analysis showed that the differences that were significant on the Effectiveness dimension were those that were significant on the Autonomy dimension. Tables 33 and 34 show that Eric (6) and Penny (5) were rated significantly higher than all of the other children except the young boy (4). This young boy did not differ significantly from any of the children. Child 1 (young girl), child 2 (young boy), child 3 (Elizabeth Walton) and child 4 (young boy) did not differ significantly from each other.

The results changed when comparing children on the Acceptability dimension. As reported in Table 35, Elizabeth Walton was rated significantly higher than child 1 or child 2. There were no other significant differences on this dimension.

Table 33

Summary of Student-Newman-Keuls with Mean Scores on Effectiveness Dimension for Children

Child	+1	+2	3	4	5	+6	$\bar{X}$
+1					*	*	42.793
+2					*	*	43.742
3					*	*	43.810
4							46.563
5	*	*	*				49.167
+6	*	*	*				50.667

*Difference significant at the .05 level
+Children appearing with elderly

Table 34

Summary of Student-Newman-Keuls with Mean Scores on Autonomy Dimension for Children

Child	+1	+2	3	4	5	+6	$\bar{X}$
+1					*	*	40.483
+2					*	*	42.000
3					*	*	42.143
4							45.250
5	*	*	*				47.111
+6	*	*	*				48.393

*Difference significant at the .05 level
+Children appearing with elderly

Table 35

Summary of Student-Newman-Keuls with Mean Scores on Acceptability Dimension for Children

Child	+1	+2	3	4	5	+6	$\bar{X}$
+2			*				71.516
+1			*				71.897
4							78.000
+6							78.454
5							79.222
3	*	*					82.571

*Difference significant at the .05 level
+Children appearing with elderly

A different picture is presented when children within groups were compared. For example, significant differences were found between children appearing with elderly persons, while there were no significant differences between children not appearing with elderly persons.

A one-way analysis of variance computed for the behaviors of children appearing with the elderly yielded F values of (df = 2,90) of 151.113 ($p < .000$) on the Effectiveness dimension, 14.118 ($p < .000$) on the Autonomy dimension, and 4.816 ($p < .010$) on the Acceptability dimension.

Tables 36, 37, and 38 show that on all three dimensions the same child (Eric) was rated significantly higher than the young girl (1) and the young boy (2). In addition, children 1 and 2 did not differ significantly on any dimension

Table 36

Summary of Student-Newman-Keuls with Mean Scores on Effectiveness Dimension for Children Appearing with Elderly

Child	1	2	6	$\bar{X}$
1			*	42.793
2			*	43.742
6	*	*		50.667

*Difference significant at the .05 level

Table 37

Summary of Student-Newman-Keuls with Mean Scores on Autonomy Dimension for Children Appearing with Elderly

Child	1	2	6	$\bar{X}$
1			*	40.483
2			*	42.000
6	*	*		48.394

*Difference significant at the .05 level

Table 38

Summary of Student-Newman-Keuls with Mean Scores on Acceptability Dimension for Children Appearing with Elderly

Child	1	2	6	$\bar{X}$
1			*	71.897
2			*	71.516
6	*	*		78.455

*Difference significant at the .05 level

In order to determine if children appearing with the elderly were significantly different from the elderly with whom they appeared, a one-way analysis of variance was computed. From this analysis F values (df = 5,148 of 10.263 (p < .000) on the Effectiveness dimension, 12.504 (p < .000) on the Autonomy dimension, and 2.937 (p < .015) on the Acceptability dimension were obtained.

The Student-Newman-Keuls procedure further pointed out where the differences were found. Table 39 presents results on the Effectiveness dimension. It was shown that child 5 (Eric) and elderly 6 (Allen Funt) did not differ significantly from each other, but that they were rated significantly higher than elderly 1 (Uncle Cleaver), child 2 (young girl), and child 3 (young boy). Elderly 6 was rated significantly higher than elderly 4 (Allen Funt), but child 5 did not differ significantly from elderly 4. Elderly 4, child 3, child 2, and elderly 1 did not differ significantly.

Differences on the Autonomy dimension are presented in Table 40. For this dimension, elderly 6 (Allen Funt), elderly 4 (Allen Funt), and child 5 (Eric) did not differ significantly from each other, but were rated significantly higher than child 2 (young girl), child 3 (young boy), and elderly 1 (Uncle Cleaver). The latter three persons did not differ significantly from each other.

Although the analysis of variance indicated that there was a significant difference ($p < 0.15$) for these persons as a whole on the Acceptability dimension, the Student-Newman-Keuls procedure found no significant pairwise contrasts.

Table 39

Summary of Student-Newman-Keuls with Mean Scores on Effectiveness Dimension for Children and Elderly Appearing Together

Social Object	+1	2	3	+4	5	+6	$\bar{X}$
+1					*	*	42.529
2					*	*	42.793
3					*	*	43.742
+4						*	47.760
5	*	*	*				50.667
+6	*	*	*	*			52.526

*Difference significant at the .05 level
+Elderly

Table 40

Summary of Student-Newman-Keuls with Mean Scores on Autonomy Dimension for Children and Elderly Appearing Together

Social Object	+1	2	3	+4	5	+6	$\bar{X}$
2				*	*	*	40.483
3				*	*	*	42.000
+1				*	*	*	44.353
5	*	*	*				48.394
+4	*	*	*				49.720
+6	*	*	*				52.632

*Difference significant at the .05 level
+Elderly

In contrast to the sample analyzed in the previous example, another one-way analysis of variance was performed to test for differences between behaviors for children and elderly not appearing together. The analysis yielded *F* values (*df* = 12,121) of 6.765 on the Effectiveness dimension, 6.801 on the Autonomy dimension, and 14.341 on the Acceptability dimension ($p < .000$).

An examination of Tables 41, 42, and 43 revealed which differences were significant for the three dimensions. In Table 41, for example, the only person who differed significantly was the elderly person, Pop (1), who was rated significantly lower than the others on the Effectiveness dimension.

Table 42 indicates a similar finding concerning Pop (1) for the Autonomy dimension. Bob Hope (5) and Colonel Potter (3), although not significantly different from each other, were rated significantly higher than Pop and Elizabeth Walton (2). In addition Bob Hope was rated significantly higher than the young boy (4) and Penny (6).

As reported in Table 43 on the Acceptability dimension, Pop (1) was once again rated significantly lower than all other persons. This was the only dimension on which all elderly fell on the lower end of the scale with the children receiving the higher scores. Still, with the exception of Elizabeth Walton (2), rated significantly higher than Colonel Potter, and all others rated higher than Pop, there were no significant differences found.

Table 41

Summary of Student-Newman-Keuls with Mean Scores on Effectiveness Dimension for Children and Elderly Not Appearing Together

Social Object	+1	2	+3	4	+5	6	$\overline{X}$
+1		*	*	*	*	*	33.222
2	*						43.809
+3	*						45.000
4	*						46.563
+5	*						48.115
6	*						49.167

*Difference significant at the .05 level
+Elderly

Table 42

Summary of Student-Newman-Keuls with Mean Scores on Autonomy Dimension for Children and Elderly Not Appearing Together

Social Object	+1	2	+3	4	+5	6	X̄
+1		*	*	*	*	*	34.556
2	*		*		*		42.143
4	*				*		45.250
6	*				*		47.111
+3	*	*					48.885
+5	*	*		*		*	52.961

*Difference significant at the .05 level
+Elderly

Table 43

Summary of Student-Newman-Keuls with Mean Scores on Acceptability Dimension for Children and Elderly Not Appearing Together

Social Object	+1	2	+3	4	+5	6	X̄
+1		*	*	*	*	*	44.963
+3	*	*					70.423
+5	*						75.000
4	*						78.000
6	*						79.222
2	*		*				82.571

*Difference significant at the .05 level
+Elderly

A one-way analysis of variance was computed on the two adults who were rated by all four groups. There were no significant differences in the way that the four groups rated Tom Kennedy on any of the dimensions. The same result was found for Schneider. When the two adults were compared, however, the means differed significantly on two dimensions. F values ($df = 2,206$) of 8.739 ($p < .000$) on the Autonomy dimension and 3.121 ($p < .045$) on the Acceptability dimension were obtained. On both dimensions Tom Kennedy was rated significantly higher than Schneider. There were no differences of significance on the Effectiveness dimension.

One final analysis of variance was performed on a ramdom sample of one child, one adult, and one elderly person. The F values ($df = 3,63$) were calculated to be 2.942 ($p < .039$) on the Effectiveness dimension and 7.033 ($p < .000$) on the Acceptability dimension. Differences were not significant on the Autonomy dimension.

On the Effectiveness dimension the child (Penny) was rated significantly higher than either the adult (Schneider) or the elderly (Uncle Cleaver). The adult and the elderly person did not differ significantly (Table 44).

Table 45 shows that the child was rated significantly higher than the adult but not higher than the elderly person on the Acceptability dimension. The elderly person was also rated significantly higher than the adult.

Table 44

Summary of Student-Newman-Keuls with Mean Scores on Effectiveness Dimension for Child-Adult-Elderly

Social Object	Child	Adult	Elderly	$\overline{X}$
Elderly	*			42.529
Adult	*			43.750
Child		*	*	49.167

*Difference significant at the .05 level

Table 45

Summary of Student-Newman-Keuls with Mean Scores on Acceptability Dimension for Child-Adult-Elderly

Social Object	Child	Adult	Elderly	$\overline{X}$
Adult	*		*	67.250
Elderly		*		75.588
Child		*		79.222

*Difference significant at the .05 level

In order to determine the extent to which the sample of stimuli or social objects selected were representative of the total population available, a generalizability analysis was performed. The Gen Prog. program (Appendix F) was used to obtain variance components and score components for the facets identified as raters, items and social objects .

Summing the estimated score components yielded a variance of the mean for a set of social objects, raters and items. A further step produced the estimated standard error of the mean ($\sigma_{\bar{x}}$), indicating the extent of the sampling variability of the means on a scale of 1 to 7 for each of three dimensions--Effectiveness (E), Autonomy (A), and Acceptability (A1). (Refer to Cronbach, 1972 p.96, for other samples.)

The generalizability program also made it possible to determine the degree to which the estimated standard error of the mean would be affected, when the number of stimuli (social objects) were increased. This would be important particularly in cases where the $\sigma_{\bar{x}}$ could be larger than desired. The established procedures allow one to make estimates with larger number of stimuli.

Table 46 , for example, indicates, as expected, that as the number of stimuli increased, the standard error of the mean decreased. In this Table and in the ones that follow, it would appear that the number of stimuli chosen for the study were sufficient to allow them to be a sample representative of the total population available. As is evident in the Tables, increasing the number of stimuli did not appear to have any great effect on the standard error of the means.

Table 46

Estimated Standard Error for Scale Means for Various Numbers of Stimuli*
Holding Raters to 29 and Items to 32

#	Dimension Scale Mean for Sample			est $\sigma_{\bar{x}}$			$\pm 1\ \sigma_{\bar{x}}$		
Stimuli	E	A	A_1	E	A	A_1	E	A	A_1
3	5.082	4.847	5.282	.326	.333	.243	5.408	5.180	5.525
							4.756	4.514	5.039
5	5.082	4.847	5.282	.276	.287	.224	5.358	5.134	5.506
							4.806	4.560	5.058
10	5.082	4.847	5.282	.230	.246	.208	5.312	5.903	5.490
							4.852	4.601	5.074

* Children appearing with elderly

Table 47

Estimated Standard Error for Scale Means for Various Numbers of Stimuli*
Holding Raters to 17 and Items to 32

#	Dimension Scale Mean for Sample			est $\sigma_{\bar{x}}$			$\pm 1\ \sigma_{\bar{x}}$		
Stimuli	E	A	A_1	E	A	A_1	E	A	A_1
3	5.289	5.433	5.481	.388	.355	.270	5.677	5.788	5.751
							4.901	5.078	5.211
5	5.289	5.433	5.481	.341	.300	.257	5.630	5.733	5.738
							4.948	5.133	5.224
10	5.289	5.433	5.481	.301	.251	.248	5.590	5.684	5.729
							4.988	5.182	5.233

* Elderly appearing with children

Table 48

Estimated Standard Error for Scale Means for Various Numbers of Stimuli*
Holding Raters to 20 and Items to 32

# Stimuli	Dimension Scale Mean for Sample			est $\sigma_{\bar{x}}$			$\pm 1\ \sigma_{\bar{x}}$		
	E	A	A_1	E	A	A_1	E	A	A_1
3	4.679	5.052	4.533	.621	.632	.695	5.300 4.058	5.684 4.420	5.228 3.838
5	4.679	5.052	4.533	.518	.527	.572	5.197 4.161	5.579 4.525	5.105 3.961
10	4.679	5.052	4.533	.425	.431	.459	5.104 4.254	5.483 4.621	4.992 4.074

* Elderly not appearing with children

Table 49

Estimated Standard Error for Scale Means for Various Numbers of Stimuli*
Holding Raters to 16 and Items to 32

# Stimuli	Dimension Scale Mean for Sample			est $\sigma_{\bar{x}}$			$\pm 1\ \sigma_{\bar{x}}$		
	E	A	A_1	E	A	A_1	E	A	A_1
3	5.168	4.982	5.709	.240	.342	.214	5.408 4.928	5.324 4.640	5.923 5.495
5	5.168	4.982	5.709	.240	.342	.214	5.408 4.928	5.324 4.640	5.923 5.495
10	5.168	4.982	5.709	.240	.342	.214	5.408 4.928	5.324 4.640	5.923 5.495

* Children not appearing with elderly

Table 50

Estimated Standard Error for Scale Means for Various Numbers of Stimuli*
Holding Raters to 15 and Items to 32

#	Dimension Scale Mean for Sample			est $\sigma_{\bar{x}}$			$\pm 1\ \sigma_{\bar{x}}$		
Stimuli	E	A	A_1	E	A	A_1	E	A	A_1
6	4.635	4.890	4.549	.453	.455	.436	5.088 4.182	5.345 4.490	4.985 4.113
10	4.635	4.890	4.549	.414	.400	.376	5.049 4.221	5.290 4.490	4.925 4.173
15	4.635	4.890	4.549	.394	.369	.342	5.029 4.241	5.259 4.521	4.891 4.207

* All elderly subgroups pooled

Summary of the Findings

This chapter has presented the results of the statistical analyses employed to answer the major research questions which examined the extent to and manner in which the elderly were portrayed on television programs viewed by children. In order to answer these questions, the following results were reported:

Content Analysis - Evenings

Question 1

1. Approximately 50% of the shows sampled portrayed elderly persons over the age of 60. In all there were 59 elderly persons presented. When broken down by age group, 52.5% were between the ages of 60 and 64, 27.1% were between 65 and 69, 8.5% were between 70 and 74, and 11.9% were over the age of 75.
2. On the three networks, ABC, CBS, and NBC, and their local affiliates, the elderly were distributed rather unevenly. CBS presented 55.9% of the elderly persons with 18.6% of these being shown during the 7:30 time slot in the Candid Camera program.
3. Elderly women were disproportionately represented, in that 86.4% of the elderly were men compared to the 13.6% women.
4. Although 6.8% of the elderly were black, there were no other minorities represented by the elderly sample. Race was significantly associated with network. There were no elderly blacks on ABC, 3 on NBC and 1 on CBS ($\chi^2 = 6.360$, $\underline{df} = 2$, $\underline{p} < .042$).
5. There were fewer children, between the ages of 3 and 12, than elderly presented in the segments sampled. Children were portrayed in only 21% of the segments. In addition, there were only four child/elderly

interactions in the entire sample. Ninety-three percent of the elderly did not interact in any way with a child from this age range.

Question 2

1. More elderly 35 (59.3%) appeared in minor roles than in major roles 24 (40.7%). When analyzed on the basis of age group, it was found that those elderly over 75 years of age were more likely to be portrayed in a major rather than minor role ($\chi^2 = 8.420$, df = 3, p. < .038).
2. Of the total sample of elderly persons, 38 (64.4%) were portrayed in achieved roles to 21 (35.6%) portrayed in ascribed roles. Sex was significantly associated with these roles, women being more likely to be found in ascribed roles than men ($\chi^2 = 8.416$, df = 1, p. < .004).
3. Compared with 17 (28.8%) of the elderly sample being designated by the raters as of lower socio-economic status (SES), and 16 (27.1%) considered as belonging to the upper SES, the largest proportion 26 (44.1%) were classified as middle SES. Sex was significantly associated with SES. Elderly women were more likely to be portrayed in lower SES ($\chi^2 = 6.245$, df = 2, p < .044).

Question 3

1. Although it was impossible to determine the occupations for 16 (27.1%) of the elderly sample, it was revealed that 18 (30.5%) were in professional and technical occupations. In addition, 5 (8.5%) were portrayed in criminal occupations.
2. Of the 8 elderly women, it was not known whether 5 had jobs; two were not in the labor force and one had a sales job. There were no men holding clerical positions, and there were no women in criminal roles.
3. More than half (54.2%) of the elderly were in occupations for which the occupational prestige rating could not be established. Another

22% were rated in the high-prestige professional category. This was not the case, however, for the elderly blacks. There were no blacks in high-prestige positions and for 3 of the 4, the occupations were undetermined.

4. Of the 59 elderly persons portrayed in the sample, 37 (62.7%) were reported to hold full-time positions, 7 (11.9%) part-time, and 15 (25.4%) undetermined. Men were found to be more likely to hold a full-time position than women ($\chi^2 = 7.106$, $\underline{df} = 2$, $\underline{p} < .028$).

Question 5

1. Only one segment involved a child/elderly interaction within the family structure. There were no familial ties between the other three elderly and children who interacted.
2. Of the four child/elderly interactions, 3 showed passive interactions where the elderly person and child were only engaged in conversation, while sitting down. The fourth interaction was more active, involving an elderly uncle taking a roller coaster ride with the little girl.
3. In two of the segments the elderly persons were "doing something for" the child. In one case the elderly person was giving advice to the child. In another situation, the child told a joke to an elderly person. In the other interaction the elderly person took the child to an amusement park.
4. There were no elderly women interacting with children.

Content Analysis--Saturday Mornings

Question 1

1. Of the 20 taped segments, 13 (65%) portrayed one or more elderly persons over the age of 60. The proportion of elderly persons in different age groups was 43.5% between 60 and 64 years of age, 26.1% between 65 and 69, 21.7% between 70 and 74, and 8.7% over 75.

2. Of the 23 elderly persons, only one was a real-life person. The others were animated characters.
3. Elderly women were disproportionately represented; 87% were males and 13% females.
4. There were no elderly blacks or elderly representatives from any other minority group.
5. Children, animated and real-life, were presented in only 3 of the 20 segments. There were no interactions between elderly characters and children aged 3-12.

Question 2

1. Most of the elderly sample, 14 (60.9%), were portrayed in minor roles.
2. Eighty-seven percent (20) of the elderly were cast in achieved roles and 13% (3) in ascribed roles. There were no women assigned to ascribed roles.
3. Of the elderly sample, 9 (39.1%) were of lower socioeconomic status (SES) 8 (34.8%) from the middle SES, and 6 (26.1%) representing the upper SES. There were no women in this upper level.

Question 3

1. Of the 23 elderly characters, 5 (21.7%) were presented in professional/technical occupations, 4 (17%) were found in agricultural positions, 4 (17.4%) were unclassifiable, 3 (13%) were service workers, and 2 (8.7%) were in each of the categories designated as Unknown and Crime Occupation.
2. Two of the 3 women were shown in clerical jobs; no men had clerical jobs. In these segments, however, 1 of the women was in a criminal occupation, while only 1 of the 20 elderly men was classified as such.
3. Of the elderly sample, 39.1% had high-prestige occupations compared to 26% who were in the low-prestige category. Many occupations (34.8%) could not be rated. There were no women in high-prestige jobs.

4. There were no elderly characters in part-time occupations. Full-time positions accounted for 93.3% of the sample. Every woman had a full-time occupation.

Question 5 could not be answered because there were no child/elderly interactions.

Semantic Differential Analysis

Question 4

1. When the elderly behaviors were analyzed in order to get an overall view as to where they fit on the Effectiveness, Autonomy, and Acceptability dimensions, dimension scale means for the sample, on a scale of 1 to 7, were all less than 5.
2. The Effectiveness scale mean for the sample was 4.635, suggesting that this elderly sample, though not ineffective, was not extremely effective either. The dimension scale mean (4.890) on the Autonomy dimension, though slightly more favorable, nevertheless, indicated a similar finding. This elderly sample appeared to be more independent than dependent, but not to any great degree. Elderly behaviors on the Acceptability dimension were again on the positive rather than negative side of the scale with a dimension scale mean of 4.549.
3. Analysis of variance summary tables show that as individuals, many of the behaviors were rated significantly different from one another. While some elderly behaviors were rated either consistently high or low, many of them varied from person to person and from dimension to dimension. For example, although Bing Crosby and Bob Hope were among the three highest ratings on all three dimensions and Lujak, the Taste Tester, Jack, and Mr. Jamison were rated the lowest on two dimensions, there were a number of others whose ratings were not constant. For example, the Male Food Tester mentioned above received a high

rating on the Acceptability dimension.

Question 5

1. When elderly behaviors were compared to those of younger persons, the analyses produced mixed results. In some cases, children's behaviors were rated significantly higher than elderly behaviors. In other situations the reverse happened.
2. Significant differences were often attributed to the roles in which the persons were portrayed. Many differences turned out to be significant; those that were found to be non-significant were also of interest. For example:
    a. Significant differences were found on the Effectiveness and Autonomy dimensions for the elderly appearing with children; however, no differences were found on the Acceptability dimension.
    b. Only Pop was rated significantly different from the other two elderly who did not appear with children.
    c. There were no significant differences between the behaviors exhibited by children who did not appear with the elderly.
    d. Only Eric was rated significantly different from the two other children who appeared with the elderly.
    e. There were no significant differences on the Acceptability dimension for children and elderly appearing together. If one looks more closely, it can also be noticed that with one exception, the behaviors of each child and elderly who appeared in the same sequence together were not significantly different. The exception was on the Autonomy dimension where Allen Funt (4) was rated significantly higher than the young boy (3).

Generalizability Analysis

The results of the generalizability analysis revealed that the number of stimuli (social objects), selected for this study, were sufficient in number for them to be considered a sample representative of the total population available.

CONCLUSIONS, DISCUSSION AND RECOMMENDATIONS

"Television is a source of information about the world, its social relationships and its social structure. But it is not a mirror of society; it is a prism that selects and focuses attention on the values of the dominant culture" (Stein & Friedrich, 1975). The purpose of this study was to explore how television, a source of information children use as they develop their attitudes toward aging and the elderly, selects and focuses attention on the elderly during evening prime time and children's Saturday morning television programming. Specifically, this study documented the extent to and manner in which the elderly were portrayed on television during children's viewing time.

To answer the questions of how frequently the elderly were portrayed and in what manner, a number of procedures were completed. A random sample of television programs aired during evening hours and Saturday morning children's programming were selected. A total of 65 half-hour segments from the evening hours between 7:30 p.m. and 10:00 p.m. and 20 half-hour segments from 8:00 a.m. to 12:00 p.m. on Saturdays formed the sample of television shows that were analyzed. A subsample of the selected segments were viewed and rated by students at the University of Maryland. These segments were then analyzed using a content analysis and a semantic differential to provide information about the extent to and manner in which the elderly were portrayed on television.

Summary of Results

Evening Shows

1. About one-half of the programs sampled portrayed at least one person over the age of 60. In all, 59 elderly persons were portrayed.

2. The elderly were not present in equal numbers on the three major networks--ABC, CBS, and NBC. CBS presented over half of the elderly identified in the total sample of shows.

3. Older women were under-represented.

4. Minorities were under-represented. No minorities, other than blacks, were portrayed in the sample.

5. Children were also under-represented.

6. There were only four child-elderly interactions in the total sample of shows. Most of these interactions were classified as passive and outside the family structure.

7. The older person more often appeared in minor than in major roles. Those over the age of 75, however, were more likely to be portrayed in a major role.

8. More older persons were portrayed in achieved roles, those acquired on the basis of skill or performance, than in ascribed roles, those based on certain attributes such as age or seniority. Women, however, were more likely to be found in ascribed roles.

9. Over half of the older persons were portrayed as holding full-time jobs. Men were more likely to hold a full-time position than women.

10. It was impossible to determine the occupation of slightly more than one-fourth of the elderly. Approximately one-third, however, were in professional or technical occupations, and about 8% were portrayed in criminal roles.

11. Over half of the older persons were portrayed in occupations for which the occupational prestige rating could not be established. Less than one-fourth of the elderly in the sample were in occupations classified as high-prestige. No elderly blacks, or women, were found in occupations classified as high prestige.

12. The largest proportion of older persons were portrayed as being of the middle class. Women, however, were more frequently classified as being of lower socio-economic status than men.

13. The sample of elderly persons was rated positively on the Effectiveness, Autonomy and Acceptability dimensions of the "Aging Semantic Differential." These ratings, while positive, were closer to a neutral rating than the extreme positive rating.

14. Some older persons were rated higher on the dimensions of Effectiveness, Autonomy and Acceptability than some younger persons. Some young persons were rated higher on the dimensions than some older persons.

Saturday Morning Programs

Saturday morning programs were separated from evening data because of the predominance of cartoon characters. Of the total sample of older persons on Saturday morning programming, only one was an actual person; the remainder were portrayed as either cartoon, or animated characters.

1. Over half of the Saturday morning shows did portray an elderly character over the age of 60.

2. Elderly women were under-represented.

3. No elderly blacks or representatives from other minority groups were presented.

4. Children, either portrayed as cartoon or real-life characters, were present in only three of the 20 segments. There were no child-elderly interactions.

5. Most of the elderly were found in minor roles.

6. Most of the elderly were classified as being in achieved roles; no women were assigned to ascribed roles.

7. Approximately one-third of the elderly portrayed on Saturday morning shows were of lower-socio-economic status, one-third from the middle and one-third from the upper socio-economic status. No women were represented as being of high socio-economic status.

8. Of the elderly sample, over a third were portrayed as having a high-prestige occupation. No women were found in high-prestige occupations.

9. No elderly were in part-time occupations. Every woman identified was employed full time.

Conclusions and Discussion

The results of this study have led to the following conclusions about how television, a source of information children use as they develop attitudes, selects and focuses attention on the elderly during prime time and Saturday morning programming.

Frequency of Appearance

The elderly are indeed visable during prime time television programming, with at least one person over the age of 60 appearing in over half of the selected shows. Thus, it can be concluded that children today are being exposed to models of older persons on television programming.

Appearance of the elderly on over half of the shows may be due to the sampling procedures used in this study. This study utilized a random sample of shows from a ten week period for analysis. Prior studies on the frequency of appearance of older persons on television programs selected shows on a given day or week for analysis. A random sample of shows, over a longer period of time, may have led to the appearance of the elderly in over 50% of the shows

The sampling technique used in the study might also account for the fact that there were differences in the frequency of appearance of the elderly based on network. CBS presented over 51% of the sample of older persons found in the program segments. As a result of the random sampling technique, Candid Camera was selected for analysis three times. The Candid Camera show made up 18.6% of the total sample of the older persons in this study, as well as three of the four child-elderly interactions.

When the older person is present on television programs viewed by children, that person is most often a white male. Few elderly women and no minorities, other than blacks, were present. Although the older woman comprises a majority in the elderly population, she continues to be under-represented on television programs viewed by children.

Children were also under-represented on the selected segments of this study. It seems as if television does in fact act as a prism that selects and focuses, rather than mirrors society. Children, elderly women and minorities, important members of society, are generally under-represented in today's television programming.

Roles

In this study the elderly were found to be portrayed in a variety of roles. These roles, however, were more often categorized as minor rather than major. The older elderly, those over the age of 75, were more likely to be portrayed in a major role. Rather than realistically portraying older persons, television may be presenting a glamourized image of the oldest in the population while delegating the young old to minor roles.

Most of the elderly men in this study were portrayed in achieved, rather than ascribed, roles. The older women, on the other hand, were usually portrayed in ascribed roles, those roles that depend on status or age instead of achievement. When the older woman is present on television programs viewed by children she is in a minor role, and one that is ascribed.

The older woman, when present, is portrayed as a person without significant achievements of her own. This portrayal could also lead to stereotyping of the older woman as unimportant and non-achieving.

Behaviors

The evaluations of older persons' behaviors seemed to be most influenced by the situation in which they were portrayed. People who had an established identity such as Bob Hope, or people who were portrayed in positions of high-prestige, received the highest ratings. Some older persons, therefore, were rated higher on the dimensions of Effectiveness, Autonomy and Acceptability than other older persons. In addition, when the behaviors of younger persons were examined compared to the behaviors of the elderly, there was as much variation within as between age groups. Again, it seemed as if the rating was based on the situation in which the person was portrayed.

Occupations

Older people were also portrayed in a variety of occupations on the selected sample of shows. Older people were represented as having occupations in the professional, technical, agricultural and service fields. Another portion of occupations, nearly a third, could not be determined and another 8% of the elderly were found in the occupation classified as criminal.

Women were under-represented in the area of occupations; only one woman of the eight had a job that could be classified, and the position was of low-prestige. More men than women were portrayed in full-time positions, with the white, younger male holding occupations classified as high prestige. Children, therefore, are presented a limited view of the older woman--one without a full-time position.

Since the elderly are rarely involved in commiting a crime in real life (Butler, 1977), it's interesting to speculate whether the 8% of older persons portrayed in a criminal occupation represents a stereotype. A few children have reported that older people are mean and could hurt you (Jantz, et. al., 1976). The question might be asked if this perception is based on information children receive from television viewing.

Interactions

Few children were present in the selected sample of televised segments; thus, few child-elderly interactions were identified. Of the four child-elderly interactions that were found, three were classified as passive interactions. These were interviews with Allen Funt on the Candid Camera show.

The absence of child-elderly interactions on television seems to deny children the opportunity to vicariously experience the possibilities of intergenerational contact. As children report few actual interactions with older people, or few intergenerational contacts within the family unit or community, the opportunity to view such contacts on television programs could be seen as critical. Research does suggest that information from television programs is more influential on attitude formation when contact with the group, person or other social object is absent in real life. Without vicarious experiences portrayed in child-elderly interactions, children are denied even second hand information about intergenerational contacts and interactions.

Children have typically stereotyped the possibilities inherent in child-elderly interactions (Jantz, et. al. 1976). When asked what they could do for or with an older person, or what an older person could do for or with them, children generally responded by describing activities that were passive in nature or involved doing things for a weak, older person. The idea that children and older persons could share activities or find pleasure doing things together does not seem to be a part of children's perceptions of older persons nor a part of typical television programming.

Saturday Morning Programs

Saturday morning programs offer children little opportunity to learn about older persons. All but one of the older persons identified in the sample of Saturday morning programs were portrayed as cartoon or animated characters. Although children, even very young children, are found to be able to identify with cartoon characters (McCall, et. al., 1977), the nearly exclusive portrayal of the elderly as animated or cartoon characters on Saturday morning programs might be challenged.

The possibilities for stereotyping increase in cartoons. The very nature of a cartoon, the use of exaggeration, symbolization and the characterization draw attention to specific attributes and characteristics of persons and things; the purpose of these techniques is to create cognitive dissonance or humor.

The way the occupations of older cartoon characters were depicted in the selected segments of this study is an example of the way symbolization and exaggeration can be used to increase the possibility of humor and also to stereotype. While it was difficult, in many cases impossible, to classify occupations of older persons on dramas on evening programming, it was never difficult to do so for cartoon characters. The exaggerated depiction of the cartoon character made it very clear what occupation the character had. A character was either a king, a clerk or consumer, a teacher or pupil. There was never any doubt about the person's occupation because of the way in which the character and the occupation were depicted.

Likewise, the other characteristics and attributes of the person were exaggerated. Wrinkles, facial features and other physical characteristics were depicted symbolically, giving a clear, but stereotypic message about the older person.

Stereotypes were also present in the dialogue of Saturday morning shows. In one of the episodes an elderly character was portrayed as a "cabin boy," doing odd jobs on a boat for a captain. The elderly man made the remark, "old people shouldn't have to row boats--it's too hard on their arteries."

Saturday morning programs also neglected to portray a representative population. Children, older women and minorities were under-represented, giving a skewed picture of the population of older persons.

Recommendations

Research demonstrates that children's attitudes toward the elderly are negative and stereotypic (Jantz, Seefeldt, Galper & Serock, 1976). The source of these attitudes, however, is not entirely clear. Evidence seems to suggest that stimuli children receive from parents, peers, the school as well as television and other media do influence the development of attitudes. As children view television daily, spending up to one-third of their waking hours watching television, it has been believed that television must stand with parents, teachers and peers as a source of stimuli and information children use to develop attitudes toward groups of people, including the elderly.

The results of this study do not prove or disprove the premise that television is a potent source of information children use to form their attitudes toward the elderly. While the elderly on television are not portrayed as extremely effective, autonomous or acceptable, they are not generally portrayed so negatively as described by children.

The portrayal of older persons on prime time programming does not parallel children's negative attitudes toward the elderly. When children, ages three to 11, were asked to describe older white males they called them helpless, sick and tired (Jantz, et. al., 1976). Yet the white males portrayed on the segments of television programs in this study exhibited behaviors that were rated as effective, autonomous and acceptable. A number of older persons in this study were depicted in major and achieved roles and held jobs, some of which were of high-prestige.

Television does, as a prism, select and focus on those dominant in our culture. Conspiciously absent from the segments were older women and members of minority groups. Older women were not only generally absent from the selected segments, but when they did appear they were usually cast in an ascribed role. Women were also more likely to be portrayed in the lower socio-economic class than men. If in fact the portrayal of women on television can influence children's career choices and aspirations (O'Bryant & Colder-Bolz, 1978), then television could be accused of limiting children's, especially girls', future aspirations.

Also absent from the segment of television programs were portrayals of child-elderly interactions. Certainly no one is suggesting that vicarious viewing of child-elderly interactions could take the place of intergenerational contacts. Television can never be considered more important than life. Children, in order to learn about the elderly and form positive attitudes toward aging and the elderly, will need to interact with older people and experience for themselves the possibilities of child-elderly interactions. Yet television and actual experiences could work together to influence children's perceptions of the elderly and to influence behaviors toward and with those persons older than they.

Television does have the potential to present children with a wide diversity of life as it is and as it might be. Because of television's potential to influence the quality of life, the following recommendations are given.

1. The frequency of appearance of older persons, on television programs viewed by children, should be increased.

2. Saturday morning programs could increase the depiction of actual persons rather than the predominance of cartoon and animated characters in order to present a more realistic picture of the elderly.

3. The frequency of interactions between children and older persons should be increased on television programs.

4. The elderly should be portrayed in diverse roles. Attention should be paid to major, as well as minor roles and to achieved, as well as ascribed roles. Occupations of the elderly should be clearly defined.

5. The older woman and minority member have the right to be representatively portrayed on television programs.

6. Older women and minority members have the right to be portrayed in achieved as well as ascribed roles, playing major as well as minor parts and in occupations that are ranked as high-prestige.

Although children should be provided with an increasing number of elderly persons on television programs, it may be more important that they be provided with a realistic and accurate portrayal of the elderly. Children as others, should have the opportunity to see on television many more models of elderly men, women and minorities. These models, however, should be appropriately represented on television as they are in the real world.

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APPENDIX A

STANDARD INTERNATIONAL OCCUPATIONAL PRESTIGE SCALE

Appendix A

Standard International Occupational Prestige Scale

Occupation	Prestige Score			
	Major group	Minor group	Unit group	Occupation
00 PROFESSIONAL, TECHNICAL AND RELATED WORKERS	58			
001 PHYSICAL SCIENTISTS AND RELATED TECHNICIANS		66		
0011 Chemists			69	
00110 Chemist				69
0012 Physicists			76	
00120 Physicist				76
0013 Physical Scientists n.e.c.			72	
00130 Scientist				78
00131 Geologist				67
00132 Astronomer				71
00133 Weatherman[1]				49
0014 Physical Science Technicians[2]			46	
002 ARCHITECTS, ENGINEERS AND RELATED TECHNICIANS		56		

This appendix is taken from Treiman (1975), with modifications.

APPENDIX A (Continued)

Occupation	Prestige Score			
	Major group	Minor group	Unit group	Occupation
0021 Architects and Town Planners			72	
00210 Architect				72
0022 Civil Engineers			70	
00220 Engineer, Civil Engineer				70
0023 Electrical and Electronics Engineers			65	
00230 Electrical Engineer				65
0024 Mechanical Engineers			66	
00240 Mechanical Engineer				66
0025 Chemical Engineers			66	
00250 Chemical Engineer				66
0026 Metallurgists			60	
00260 Metallurgist				60
0027 Mining Engineers			63	
00270 Mining Engineer				63
0028 Industrial Engineers			54	
00280 Industrial Engineer				54
0029 Engineers n.e.c.			55	
00290 Engineer n.e.c.				55
0031 Surveyors			58	
00310 Surveyor				58
0032 Draftsmen			55	
00320 Draftsman				55
00321 Tracer[3]				26
0033 Civil Engineering Technicians			39	
00330 Surveyor's Assistant				39
0034 Electrical and Electronics Engineering Technicians[2]			46	
0035 Mechanical Engineering Technicians[2]			46	
0036 Chemical Engineering Technicians[2]			46	
0037 Metallurgical Technicians[2]			46	
0038 Mining Technicians			54	
00380 Mining Technician				54
0039 Engineering Technicians n.e.c.			46	
00390 Engineer's Aide				46
004 AIRCRAFT AND SHIPS' OFFICERS		59		
0041 Aircraft Pilots, Navigators and Flight Engineers			66	
00410 Airline Pilot				66
00411 Astronaut[1]				80

APPENDIX A (Continued)

Occupation	Prestige Score Major group	Minor group	Unit group	Occupation
0042 Ships' Deck Officers and Pilots			50	
00420 Ship's Officer				63
00421 Small Boat Officer [27]				36
0043 Ships' Engineers			60	
00430 Ship's Engineer				60
005 LIFE SCIENTISTS AND RELATED TECHNICIANS		61		
0051 Biologists, Zoologists and Related Scientists			69	
00510 Biologist				69
0052 Bacteriologists, Pharmacologists and Related Scientists			68	
00520 Medical Researcher				79
00521 Dairy Scientist				56
0053 Agronomists and Related Scientists			56	
00530 Agronomist				58
00531 Agricultural Agent				55
0054 Life Sciences Technicians			52	
00540 Medical Technician				58
00541 Agricultural Technician				47
006 MEDICAL, DENTAL, VETERINARY AND RELATED WORKERS[26]		60		
0061 Medical Doctors			78	
00610 Physician				78
00611 Chief Physician in Hospital[1]				80
0062 Medical Assistants			50	
00620 Medical Assistant				50
0063 Dentists			70	
00630 Dentist				70
0064 Dental Assistants[4]			44	
0065 Veterinarians			61	
00650 Veterinarian				61
0066 Veterinary Assistants[5]			48	
0067 Pharmacists			64	
00670 Pharmacist				64
0068 Pharmaceutical Assistants			44	
00680 Uncertified Pharmacist				44
0069 Dietitians and Public Health Nutritionists			52	
00690 Dietitian				52

APPENDIX A (Continued)

Occupation	Prestige Score			
	Major group	Minor group	Unit group	Occupation
0071 Professional Nurses			54	
00710 Professional Nurse, Nurse				54
00711 Head Nurse[1]				58
0072 Nursing Personnel n.e.c.			44	
00720 Uncertified Nurse				44
0073 Professional Midwives			46	
00730 Professional Midwife, Midwife				46
0074 Midwifery Personnel n.e.c.[6]			42	
0075 Optometrists and Opticians			60	
00750 Optometrist				62
00751 Optician				57
0076 Physiotherapists and Occupational Therapists			51	
00760 Physiotherapist				67
00761 Occupational Therapist				57
00762 Masseur				30
0077 Medical X-Ray Technicians[7]			58	
0079 Medical, Dental, Veterinary and Related Workers n.e.c.			50	
00790 Osteopath				62
00791 Chiropractor				62
00792 Herbalist				29
00793 Sanitary Officer				48
008 STATISTICIANS, MATHEMATICIANS, SYSTEMS ANALYSTS AND RELATED TECHNICIANS		56		
0081 Statisticians			55	
00810 Statistician				55
0082 Mathematicians and Actuaries			69	
00820 Mathematician				69
0083 Systems Analysts[8]			51	
0084 Statistical and Mathematical Technicians			51	
00840 Computer Programmer				51
009 ECONOMISTS		60		
0090 Economists			60	
00900 Economist				60
011 ACCOUNTANTS		62		
0110 Accountants			62	
01100 Accountant				55
01101 Professional Accountant				68

APPENDIX A (Continued)

Occupation	Prestige Score			
	Major group	Minor group	Unit group	Occupation
012 JURISTS		73		
0121 Lawyers			73	
01210 Lawyer, Trial Lawyer				71
01211 Public Prosecutor				75
0122 Judges			76	
01220 Judge				78
01221 Supreme Court Justice[1]				82
01222 Local Court Judge				73
0129 Jurists n.e.c.			71	
01290 Non-Trial Lawyer				71
01291 Legal Advisor Without Degree[3]				52
013 TEACHERS		61		
0131 University and Higher Education Teachers			78	
01310 University Professor				78
01311 University President, Dean[1]				86
0132 Secondary Education Teachers			60	
01320 High School Teacher				64
01321 Middle School Teacher				57
0133 Primary Education Teachers			57	
01330 Teacher, Primary Teacher				57
0134 Pre-Primary Education Teachers			49	
01340 Pre-Primary Teacher				49
0135 Special Education Teachers[9]			62	
0139 Teachers n.e.c.			62	
01390 Vocational Teacher				57
01391 Principal, Primary Principal				66
01392 Education Officer				68
01393 Teacher's Aide				50
01394 Secondary School Principal				72
014 WORKERS IN RELIGION		46		
0141 Ministers of Religion and Related Members of Religious Orders			54	
01410 Clergyman				60
01411 High Church Official[1]				83
01412 Religious Reciter				46
01413 Evangelist				50
01414 Missionary				49
01415 Member of Religious Order				56
01416 Assistant Priest				61

APPENDIX A (Continued)

Occupation	Prestige Score			
	Major group	Minor group	Unit group	Occupation
0149 Workers in Religion n.e.c.			39	
01490 Religious Teacher				56
01491 Faith Healer				22
015 AUTHORS, JOURNALISTS AND RELATED WRITERS		58		
0151 Authors and Critics			62	
01510 Author				62
01511 Pulp Writer[1]				35
0159 Authors, Journalists and Related Writers n.e.c.			56	
01590 Journalist				55
01591 Newspaper Editor				65
01592 Advertising Writer				47
01593 Public Relations Man				57
016 SCULPTORS, PAINTERS, PHOTOGRAPHERS AND RELATED CREATIVE ARTISTS		51		
0161 Sculptors, Painters and Related Artists			57	
01610 Artist				57
0162 Commercial Artists and Designers			49	
01620 Commercial Artist				54
01621 Designer				56
01622 Window Display Artist				38
0163 Photographers and Cameramen			46	
01630 Photographer				45
01631 TV Cameraman				47
017 COMPOSERS AND PERFORMING ARTISTS		48		
0171 Composers, Musicians and Singers			45	
01710 Musician, Classical Musician				56
01711 Jazz Musician				38
01712 Musical Entertainer				32
01713 Music Teacher				53
0172 Choreographers and Dancers			40	
01720 Dancer				45
01721 Dancing Teacher				36
0173 Actors and Stage Directors			57	
01730 Actor				52
01731 Star Actor[1]				63
01732 Dramatic Director				62
0174 Producers, Performing Arts			68	
01740 Dramatic Producer				68

APPENDIX A (Continued)

Occupation	Prestige Score			
	Major group	Minor group	Unit group	Occupation
0175 Circus Performers[10]			33	
0179 Performing Artists n.e.c.			42	
01790 Radio, TV Announcer				50
01791 Entertainer				33
018 ATHLETES, SPORTSMEN AND RELATED WORKERS		49		
0180 Athletes, Sportsmen and Related Workers			49	
01800 Professional Athlete				48
01801 Coach, Manager				50
019 PROFESSIONAL, TECHNICAL AND RELATED WORKERS n.e.c.		57		
0191 Librarians, Archivists and Curators			54	
01910 Librarian				54
0192 Sociologists, Anthropologists and Related Scientists			68	
01920 Sociologist				67
01921 Psychologist				66
01922 Archeologist				69
01923 Historian				67
01924 Social Scientist n.e.c.				69
0193 Social Workers			52	
01930 Social Worker				56
01931 Group Worker				49
0194 Personnel and Occupational Specialists			56	
01940 Personnel Director				58
01941 Job Counselor				55
0195 Philologists, Translators and Interpreters			62	
01950 Translator				54
01951 Philologist				69
0199 Other Professional, Technical and Related Workers			51	
01990 Technician				58
01991 Diviner				37
01992 Fingerprint Expert				54
01993 Explorer				49
01994 Peace Corps Member				53
01995 Advertising Executive				57
02 ADMINISTRATIVE AND MANAGERIAL WORKERS	64			
020 LEGISLATIVE OFFICIALS AND GOVERNMENT ADMINISTRATORS		64		

APPENDIX A (Continued)

	Prestige Score			
Occupation	Major group	Minor group	Unit group	Occupation
0201 Heads of Government Jurisdictions			63	
02010 Chief of State[1]				90
02011 Provincial Governor[1]				82
02012 District Head				66
02013 Head, Large City				75
02014 Head, City or Small City				68
02015 Village Head				42
0202 Members of Legislative Bodies			64	
02020 Leader of House[1]				86
02021 Member Upper House[1]				85
02022 Member Lower House				72
02023 Member Provincial House				66
02024 Member Local Council				55
0203 High Administrative Officials			66	
02030 Government Minister[1]				79
02031 Ambassador[1]				87
02032 Diplomat				73
02033 High Civil Servant, Dept. Head				71
02034 Dept. Head, Provincial Government				74
02035 Dept. Head, Local Government				63
02036 Chief's Counselor				50
021 MANAGERS		63		
0211 General Managers			65	
02110 Member Board of Directors				75
02111 Head of Large Firm				70
02112 Head of Firm				63
02113 Head of Small Firm				52
02114 Banker				67
02115 Banker, Large Bank				76
02116 Building Contractor				53
0212 Production Managers (Except Farm)			64	
02120 Factory Manager				64
0219 Managers n.e.c.			60	
02190 Businessman				58
02191 Branch Manager				52
02192 Department Manager				60
02193 Department Manager, Large Firm				63
02194 Business Executive				67
02195 Politician, Party Official				63
02196 Union Official				50
02197 High Union Official				63

APPENDIX A (Continued)

Occupation	Prestige Score: Major group	Minor group	Unit group	Occupation
03 CLERICAL AND RELATED WORKERS	41			
030 CLERICAL SUPERVISORS		55		
0300 Clerical Supervisors			55	
03000 Office Manager				55
031 GOVERNMENT EXECUTIVE OFFICIALS		55		
0310 Government Executive Officials			55	
03100 Middle Rank Civil Servant				66
03101 Civil Servant, Minor Civil Servant				54
03102 Government Inspector				61
03103 Customs Inspector				44
03104 Tax Collector				52
032 STENOGRAPHERS, TYPISTS AND CARD- AND TAPE-PUNCHING MACHINE OPERATORS		46		
0321 Stenographers, Typists and Teletypists			48	
03210 Typist, Stenographer				42
03211 Secretary				53
0322 Card- and Tape-Punching Machine Operators			45	
03220 Keypunch Operator				45
033 BOOKKEEPERS, CASHIERS AND RELATED WORKERS		38		
0331 Bookkeepers and Cashiers			41	
03310 Bookkeeper				49
03311 Cashier				31
03312 Head Cashier[13]				65
03313 Bank Teller				48
03314 Post Office Clerk				39
03315 Ticket Seller				36
0339 Bookkeepers, Cashiers and Related Workers n.e.c.			34	
03390 Financial Clerk				42
03391 Bill Collector				27
034 COMPUTING MACHINE OPERATORS		49		
0341 Bookkeeping and Calculating Machine Operators[11]			45	
0342 Automatic Data-Processing Machine Operators			53	
03420 Computer Operator				53
035 TRANSPORT AND COMMUNICATIONS SUPERVISORS		50		
0351 Railway Station Masters			56	
03510 Railway Stationmaster				56
0352 Postmasters			58	
03520 Postmaster				58

APPENDIX A (Continued)

Occupation	Prestige Score Major group	Minor group	Unit group	Occupation
0359 Transport and Communications Supervisors n.e.c.			37	
03590 Dispatcher, Expeditor				37
036 TRANSPORT CONDUCTORS		32		
0360 Transport Conductors			32	
03600 Railroad Conductor				39
03601 Bus, Streetcar Conductor				26
03602 Sleeping Car Porter				30
037 MAIL DISTRIBUTION CLERKS		30		
0370 Mail Distribution Clerks			30	
03700 Mail Carrier				33
03701 Office Boy, Messenger				26
038 TELEPHONE AND TELEGRAPH OPERATORS		44		
0380 Telephone and Telegraph Operators			44	
03800 Telephone Operator				38
03801 Telegraph Operator				45
03802 Radio Operator				49
039 CLERICAL AND RELATED WORKERS n.e.c.		38		
0391 Stock Clerks			30	
03910 Stockroom Attendant				32
03911 Shipping Clerk				29
0392 Material and Production Planning Clerks[12]			44	
0393 Correspondence and Reporting Clerks			44	
03930 Office Clerk				43
03931 Government Office Clerk				44
03932 Law Clerk[1]				59
0394 Receptionists and Travel Agency Clerks			34	
03940 Receptionist				38
03941 Transportation Agent				37
03942 Railway Baggageman				23
03943 Travel Agent				43
03944 Floor Walker				27
0395 Library and Filing Clerks			36	
03950 Library Assistant				41
03951 Filing Clerk				31
0399 Clerks n.e.c.			37	
03991 Proofreader				41
03992 Political Party Worker				48
03993 Meter Reader				21
04 SALES WORKERS	40			
040 MANAGERS (WHOLESALE AND RETAIL TRADE)		45		

APPENDIX A (Continued)

Occupation	Prestige Score			
	Major group	Minor group	Unit group	Occupation
0400 Managers (Wholesale and Retail Trade)			45	
04000 Retail Manager				47
04001 Service Station Manager				38
04002 Credit Manager				49
041 WORKING PROPRIETORS (WHOLESALE AND RETAIL TRADE)		48		
0410 Working Proprietors (Wholesale and Retail Trade)			48	
04100 Shop Keeper				42
04101 Large Shop Owner				58
04102 One-Man Stand Operator				38
04103 Automobile Dealer				44
04104 Broker				55
04105 Livestock Broker				40
04106 Wholesale Distributor				58
04107 Smuggler[1]				9
04108 Labor Contractor				49
042 SALES SUPERVISORS AND BUYERS		49		
0421 Sales Supervisors			52	
04210 Sales Manager				52
0422 Buyers			46	
04220 Buyer				49
04221 Purchasing Agent				51
04222 Agricultural Buyer				39
043 TECHNICAL SALESMAN, COMMERCIAL TRAVELLERS AND MANUFACTURERS' AGENTS		46		
0431 Technical Salesmen and Service Advisers			46	
04310 Sales Engineer				51
04311 Utility Co. Salesman				42
0432 Commercial Travellers and Manufacturers' Agents			47	
04320 Traveling Salesman				47
044 INSURANCE, REAL ESTATE, SECURITIES AND BUSINESS SERVICES SALESMEN AND AUCTIONEERS		46		
0441 Insurance, Real Estate and Securities Salesmen			50	
04410 Insurance Agent				44
04411 Real Estate Agent				49
04412 Stock Broker				56
0442 Business Services Salesmen			42	
04420 Advertising Salesman				42
0443 Auctioneers			45	
04430 Auctioneer				39

APPENDIX A (Continued)

Occupation	Prestige Score Major group	 Minor group	 Unit group	 Occupation
04431 Appraiser				48
04432 Insurance Claims Investigator				49
045 SALESMEN, SHOP ASSISTANTS AND RELATED WORKERS		28		
0451 Salesmen, Shop Assistants and Demonstrators			32	
04510 Sales Clerk				34
04511 Automobile Salesman				36
04512 Gas Station Attendant				25
04513 Model				36
04514 Sales Demonstrator				28
0452 Street Vendors, Canvassers and Newsvendors			24	
04520 Market Trader				36
04521 Street Vendor, Peddler				22
04522 Telephone Solicitor				26
04523 Newspaper Seller				14
04524 Routeman				24
04525 Narcotics Peddler[1]				6
049 SALES WORKERS n.e.c.		15		
0490 Sales Workers n.e.c.			15	
04900 Money Lender[16]				15
05 SERVICE WORKERS	27			
050 MANAGERS (CATERING AND LODGING SERVICES)		40		
0500 Managers (Catering and Lodging Services)			40	
05000 Bar Manager				32
05001 Hotel Manager[13]				53
05002 Apartment Manager				47
051 WORKING PROPRIETORS (CATERING AND LODGING SERVICES)		37		
0510 Working Proprietors (Catering and Lodging Services)			37	
05100 Restaurant Owner				48
05101 Lunchroom, Coffee Shop Operator				35
05102 Hotel Operator				46
05103 Boardinghouse Keeper				22
05104 Pub Keeper				33
052 HOUSEKEEPING AND RELATED SERVICE SUPERVISORS		37		
0520 Housekeeping and Related Service Supervisors			37	
05200 Steward				46
05201 Housekeeper				28

APPENDIX A (Continued)

Occupation	Prestige Score Major group	Minor group	Unit group	Occupation
053 COOKS, WAITERS, BARTENDERS AND RELATED WORKERS		26		
0531 Cooks			31	
05310 Cook				31
05311 Master Cook[3]				38
05312 Cook's Helper[28]				22
0532 Waiters, Bartenders and Related Workers			21	
05320 Waiter				23
05321 Bartender				23
05322 Soda Fountain Clerk[29]				16
054 MAIDS AND RELATED HOUSEKEEPING SERVICE WORKERS n.e.c.		22		
0540 Maids and Related Housekeeping Service Workers n.e.c.			22	
05400 Servant				17
05401 Nursemaid				23
05402 Hotel Chambermaid				14
05403 Hotel Concierge				33
055 BUILDING CARETAKERS, CHARWORKERS, CLEANERS AND RELATED WORKERS		22		
0551 Building Caretakers			25	
05510 Janitor				21
05511 Concierge (Apartment House)				24
05512 Sexton				30
0552 Charworkers, Cleaners and Related Workers			20	
05520 Charworker				16
05521 Window Washer				19
05522 Chimney Sweep				25
056 LAUNDERERS, DRY-CLEANERS AND PRESSERS		22		
0560 Launderers, Dry-Cleaners and Pressers			22	
05600 Launderer				22
057 HAIRDRESSERS, BARBERS, BEAUTICIANS AND RELATED WORKERS		32		
0570 Hairdressers, Barbers, Beauticians and Related Workers			32	
05700 Barber				30
05701 Master Barber[3]				37
05702 Beautician				35
05703 Operator of Hairdressing Salon[3]				45
058 PROTECTIVE SERVICE WORKERS		35		
0581 Fire-Fighters			35	
05810 Fireman				35

APPENDIX A (Continued)

Occupation	Prestige Score Major group	Minor group	Unit group	Occupation
0582 Police and Detectives			40	
05820 Policeman				40
05821 Police Officer[3]				60
05822 High Police Official[1]				75
05823 Specialized Law Officer[3]				52
0589 Protective Service Workers n.e.c.			30	
05890 Watchman				22
05891 Prison Guard				39
05892 Bailiff[1]				47
059 SERVICE WORKERS n.e.c.		31		
0591 Guides			29	
05910 Museum Attendant				29
0592 Undertakers and Embalmers			34	
05920 Undertaker				34
0599 Other Service Workers			29	
05990 Medical Attendant				42
05991 Entertainment Attendant				20
05992 Elevator Operator				24
05993 Hotel Bell Boy				14
05994 Doorkeeper				27
05995 Shoe Shiner				12
05996 Airline Stewardess				50
05997 Bookmaker				34
05998 Bell Captain in Hotel				41
05999 Illegal Lottery Agent[1]				6
06 AGRICULTURAL, ANIMAL HUSBANDRY AND FORESTRY WORKERS, FISHERMEN AND HUNTERS	34			
060 FARM MANAGERS AND SUPERVISORS		48		
0600 Farm Managers and Supervisors			48	
06000 Farm Manager				54
06001 Farm Foreman				41
061 FARMERS[26]		40		
0611 General Farmers			40	
06110 Farmer				47
06111 Large Farmer				63
06112 Small Farmer				38
06113 Tenant Farmer				30
06114 Share Cropper				32
06115 Collective Farmer				35
06116 Settler				39
06117 Unpaid Family Farm Worker				34

APPENDIX A (Continued)

Occupation	Prestige Score			
	Major group	Minor group	Unit group	Occupation
0612 Specialized Farmers			55	
06120 Specialized Farmer				55
062 AGRICULTURAL AND ANIMAL HUSBANDRY WORKERS		22		
0621 General Farm Workers			20	
06210 Farm Hand				23
06211 Migrant Worker				18
0622 Field Crop and Vegetable Farm Workers			21	
06220 Field Crop Worker				21
0623 Orchard, Vineyard and Related Tree and Shrub Crop Workers			21	
06230 Palmwine Harvester				21
0624 Livestock Workers			26	
06240 Livestock Worker				26
0625 Dairy Farm Workers			23	
06250 Milker				23
0626 Poultry Farm Workers[14]			21	
0627 Nursery Workers and Gardeners			21	
06270 Gardener				21
0628 Farm Machinery Operators			31	
06280 Tractor Driver				31
0629 Agricultural and Animal Husbandry Workers n.e.c.			14	
06290 Skilled Farm Worker				30
06291 Gatherer				-2
063 FORESTRY WORKERS[26]		24		
0631 Loggers			18	
06310 Logger				19
06311 Whistle Punk				18
0632 Forestry Workers (Except Logging)			42	
06320 Forester				48
06321 Timber Cruiser				38
06322 Tree Surgeon				40
064 FISHERMEN, HUNTERS AND RELATED WORKERS		28		
0641 Fishermen			32	
06410 Fisherman				28
06411 Fisherman With Own Boat				37
0649 Fishermen, Hunters and Related Workers n.e.c.			23	
06490 Whaler				40
06491 Hunter				6

APPENDIX A (Continued)

Occupation	Prestige Score			
	Major group	Minor group	Unit group	Occupation
07 PRODUCTION AND RELATED WORKERS, TRANSPORT EQUIPMENT OPERATORS AND LABORERS	32			
070 PRODUCTION SUPERVISORS AND GENERAL FOREMEN		46		
0700 Production Supervisors and General Foremen			46	
07000 Foreman				39
07001 Supervisor				52
071 MINERS, QUARRYMEN, WELL DRILLERS AND RELATED WORKERS		32		
0711 Miners and Quarrymen			34	
07110 Miner				32
07111 Specialized Mine Worker				36
07112 Quarry Worker				24
07113 Instructor in Mine				44
0712 Mineral and Stone Treaters[15]			32	
0713 Well Drillers, Borers and Related Workers			31	
07130 Oil Field Worker				31
072 METAL PROCESSERS		38		
0721 Metal Smelting, Converting and Refining Furnacemen			45	
07210 Steel Mill Worker				45
0722 Metal Rolling-Mill Workers			36	
07220 Rolling Mill Operator				36
0723 Metal Melters and Reheaters[15]			38	
0724 Metal Casters			33	
07240 Metal Caster				33
0725 Metal Moulders and Coremakers[15]			38	
0726 Metal Annealers, Temperers and Case-Hardeners[15]			38	
0727 Metal Drawers and Extruders[15]			38	
0728 Metal Platers and Coaters			28	
07280 Galvanizer[16]				28
0729 Metal Processers n.e.c.[15]			38	
073 WOOD PREPARATION WORKERS AND PAPER MAKERS		29		
0731 Wood Treaters[17]			29	

APPENDIX A (Continued)

Occupation	Prestige Score			
	Major group	Minor group	Unit group	Occupation
0732 Sawyers, Plywood Makers and Related Wood-Processing Workers			30	
07320 Sawyer in Saw Mill				30
07321 Lumber Grader				31
0733 Paper Pulp Preparers[18]			28	
0734 Paper Makers			28	
07340 Paper Maker				28
074 CHEMICAL PROCESSERS AND RELATED WORKERS		40		
0741 Crushers, Grinders and Mixers[19]			43	
0742 Cookers, Roasters and Related Heat-Treaters[19]			43	
0743 Filter and Separator Operators[19]			43	
0744 Still and Reactor Operators[19]			43	
0745 Petroleum-Refining Workers			37	
07450 Petroleum Worker				37
0749 Chemical Processers and Related Workers n.e.c.			30	
07490 Chemical Worker				43
07491 Charcoal Burner				16
075 SPINNERS, WEAVERS, KNITTERS, DYERS AND RELATED WORKERS		29		
0751 Fiber Preparers[15]			29	
0752 Spinners and Winders			34	
07520 Spinner				34
0753 Weaving- and Knitting-Machine Setters and Pattern-Card Preparers			30	
07530 Machine Loom Fixer, Operator				30
0754 Weavers and Related Workers			32	
07540 Weaver				30
07541 Cloth Grader				33
0755 Knitters			29	
07550 Knitting Machine Operator				29
0756 Bleachers, Dyers and Textile Product Finishers			25	
07560 Cloth Dyer				25
0759 Spinners, Weavers, Knitters, Dyers and Related Workers n.e.c.			26	
07590 Textile Mill Worker				26
076 TANNERS, FELLMONGERS AND PELT DRESSERS		22		
0761 Tanners and Fellmongers[20]			22	
0762 Pelt Dressers[20]			22	

APPENDIX A (Continued)

Occupation	Prestige Score Major group	 Minor group	 Unit group	 Occupation
077 FOOD AND BEVERAGE PROCESSERS		34		
0771 Grain Millers and Related Workers			33	
07710 Grain Miller				33
07711 Grain Mill Owner-Operator[1]				42
0772 Sugar Processers and Refiners			45	
07720 Sugar Boiler				45
0773 Butchers and Meat Preparers			24	
07730 Butcher				31
07731 Packing House Butcher				18
07732 Master Butcher[3]				45
0774 Food Preservers			35	
07740 Cannery Worker				35
0775 Dairy Product Processers[15]			34	
0776 Bakers, Pastrycooks and Confectionery Makers			33	
07760 Baker				33
07761 Master Baker[3]				48
0777 Tea, Coffee and Cocoa Preparers[15]			34	
0778 Brewers, Wine and Beverage Makers[15]			34	
07780 Moonshiner[1]				6
0779 Food and Beverage Processers n.e.c.			34	
07790 Fish Butcher				34
078 TOBACCO PREPARERS AND TOBACCO PRODUCT MAKERS		34		
0781 Tobacco Preparers[15]			34	
0782 Cigar Makers			28	
07820 Cigar Maker				28
0783 Cigarette Makers[15]			34	
0789 Tobacco Preparers and Tobacco Product Makers n.e.c.			39	
07890 Tobacco Factory Worker				39
079 TAILORS, DRESSMAKERS, SEWERS, UPHOLSTERERS AND RELATED WORKERS		34		
0791 Tailors and Dressmakers			40	
07910 Tailor				40
07911 Custom Seamstress				39
0792 Fur Tailors and Related Workers			35	
07920 Fur Coat Tailor				35
0793 Milliners and Hatmakers			32	
07930 Milliner				32

APPENDIX A (Continued)

Occupation	Prestige Score			
	Major group	Minor group	Unit group	Occupation
0794 Patternmakers and Cutters			41	
07940 Garment Cutter				41
0795 Sewers and Embroiderers			26	
07950 Sewing Machine Operator				26
0796 Upholsterers and Related Workers			31	
07960 Upholsterer				31
0799 Tailors, Dressmakers, Sewers, Upholsterers and Related Workers n.e.c.[15]			34	
080 SHOEMAKERS AND LEATHER GOODS MAKERS		26		
0801 Shoemakers and Shoe Repairers			28	
08010 Shoemaker, Repairer				28
0802 Shoe Cutters, Lasters, Sewers and Related Workers[21]			28	
0803 Leather Goods Makers			22	
08030 Leather Worker				22
081 CABINETMAKERS AND RELATED WOODWORKERS		36		
0811 Cabinetmakers			40	
08110 Cabinetmaker				40
0812 Woodworking-Machine Operators[15]			36	
0819 Cabinetmakers and Related Woodworkers n.e.c.			31	
08190 Cooper				28
08191 Wood Vehicle Builder				34
082 STONE CUTTERS AND CARVERS		38		
0820 Stone Cutters and Carvers			38	
08200 Tombstone Carver				38
083 BLACKSMITHS, TOOLMAKERS AND MACHINE-TOOL OPERATORS		36		
0831 Blacksmiths, Hammersmiths and Forging-Press Operators			35	
08310 Blacksmith				34
08311 Forging-Press Operator				36
0832 Toolmakers, Metal Patternmakers and Metal Markers			40	
08320 Tool and Die Maker				40
08321 Metal Patternmaker				39
0833 Machine-Tool Setter-Operators			38	
08330 Machine Set-Up Man				40
08331 Turner				37
0834 Machine-Tool Operators			38	
08340 Machine Operator in Factory				38

APPENDIX A (Continued)

Occupation	Prestige Score Major group	 Minor group	 Unit group	 Occupation
0835 Metal Grinders, Polishers and Tool Sharpeners			27	
08350 Saw Sharpener				19
08351 Polishing Machine Operator				35
0839 Blacksmiths, Toolmakers and Machine-Tool Operators n.e.c.			40	
08390 Locksmith				40
084 MACHINERY FITTERS, MACHINE ASSEMBLERS AND PRECISION INSTRUMENT MAKERS (EXCEPT ELECTRICAL)		43		
0841 Machinery Fitters and Machine Assemblers			42	
08410 Machinist or Fitter				43
08411 Aircraft Worker				42
08412 Millwright[13]				40
0842 Watch, Clock and Precision Instrument Makers			47	
08420 Watch Maker, Repairman				40
08421 Fine Fitter				42
08422 Dental Mechanic[27]				60
0843 Motor Vehicle Mechanics			44	
08430 Garage Mechanic				43
08431 Garage Operator[3]				47
0844 Aircraft Engine Mechanics			50	
08440 Airplane Mechanic				50
0849 Machinery Fitters, Machine Assemblers and Precision Instrument Makers (Except Electrical) n.e.c.			30	
08490 Mechanic, Repairman				43
08491 Bicycle Repairman				28
08492 Mechanic's Helper				31
08493 Assembly Line Worker				30
08494 Unskilled Garage Worker				18
085 ELECTRICAL FITTERS AND RELATED ELECTRICAL AND ELECTRONICS WORKERS		41		
0851 Electrical Fitters			38	
08510 Electrical Fitter				38
0852 Electronics Fitters[22]			48	
0853 Electrical and Electronic Equipment Assemblers			48	
08530 Electronic Assembler				48
0854 Radio and Television Repairmen			42	
08540 Radio, TV Repairman				42
0855 Electrical Wiremen			44	
08550 Electrician				44
08551 Master Electrician (Own Shop)[3]				48

APPENDIX A (Continued)

Occupation	Prestige Score			
	Major group	Minor group	Unit group	Occupation
0856 Telephone and Telegraph Installers			35	
08560 Telephone Installer				35
0857 Electric Linemen and Cable Jointers			36	
08570 Power Lineman				36
0859 Electrical Fitters and Related Electrical and Electronics Workers n.e.c.[15]			40	
086 BROADCASTING STATION AND SOUND EQUIPMENT OPERATORS AND CINEMA PROJECTIONISTS		44		
0861 Broadcasting Station Operators			53	
08610 Broadcasting Station Operator				53
0862 Sound Equipment Operators and Cinema Projectionists			34	
08620 Motion Picture Projectionist				34
087 PLUMBERS, WELDERS, SHEET METAL AND STRUCTURAL METAL PREPARERS AND ERECTORS		38		
0871 Plumbers and Pipe Fitters			34	
08710 Plumber				34
08711 Master Plumber (Own Business)[3]				45
0872 Welders and Flame-Cutters			39	
08720 Welder				39
0873 Sheet-Metal Workers			34	
08730 Sheet-Metal Worker				36
08731 Copper, Tin Smith				32
08732 Boilermaker				31
08733 Vehicle Body Builder				36
0874 Structural Metal Preparers and Erectors			44	
08740 Structural Steel Worker				44
088 JEWELRY AND PRECIOUS METAL WORKERS		43		
0880 Jewelry and Precious Metal Workers			43	
08800 Jeweler, Goldsmith				43
08801 Master Jeweler, Goldsmith[3]				57
089 GLASS FORMERS, POTTERS AND RELATED WORKERS		31		
0891 Glass Formers, Cutters, Grinders and Finishers			37	
08910 Lens Grinder				41
08911 Glass Blower				33
0892 Potters and Related Clay and Abrasive Formers			25	
08920 Potter				25
0893 Glass and Ceramics Kilnmen[15]			31	
0894 Glass Engravers and Etchers[15]			31	

APPENDIX A (Continued)

	Prestige Score			
Occupation	Major group	Minor group	Unit group	Occupation
0895 Glass and Ceramics Painters and Decorators[15]			31	
0899 Glass Formers, Potters and Related Workers n.e.c.[15]			31	
090 RUBBER AND PLASTICS PRODUCT MAKERS		30		
0901 Rubber and Plastics Product Makers (Except Tire Makers and Tire Vulcanizers)[23]			30	
0902 Tire Makers and Vulcanizers[23]			30	
091 PAPER AND PAPERBOARD PRODUCTS MAKERS		28		
0910 Paper and Paperboard Products Makers[18]			28	
092 PRINTERS AND RELATED WORKERS		41		
0921 Compositors and Typesetters			42	
09210 Printer				42
09211 Master Printer[3]				51
0922 Printing Pressmen			41	
09220 Printing Pressman				41
0923 Stereotypers and Electrotypers[15]			41	
0924 Printing Engravers (Except Photoengravers)			41	
09240 Metal Engraver				41
0925 Photoengravers			46	
09250 Photoengraver				46
0926 Bookbinders and Related Workers			32	
09260 Bookbinder				32
0927 Photographic Darkroom Workers			36	
09270 Photograph Developer				36
0929 Printers and Related Workers n.e.c.			52	
09290 Graphics Printer				52
093 PAINTERS		30		
0931 Painters, Construction			31	
09310 Building Painter				31
09311 Master Building Painter[3]				39
0939 Painters n.e.c.			29	
09390 Automobile Painter				29
094 PRODUCTION AND RELATED WORKERS n.e.c.		31		
0941 Musical Instrument Makers and Tuners			33	
09410 Piano Tuner				33
0942 Basketry Weavers and Brush Makers			21	
09420 Basketweaver				21
0943 Non-Metallic Mineral Product Makers[23]			30	

APPENDIX A (Continued)

Occupation	Prestige Score			
	Major group	Minor group	Unit group	Occupation
0949 Other Production and Related Workers			41	
09490 Quality Checker				39
09491 Ivory Carver				33
09492 Taxidermist				50
09493 Calabash Maker[13]				23
095 BRICKLAYERS, CARPENTERS AND OTHER CONSTRUCTION WORKERS		31		
0951 Bricklayers, Stonemasons and Tile Setters			34	
09510 Mason				34
0952 Reinforced-Concreters, Cement Finishers and Terrazzo Workers			34	
09520 Cement Finisher				34
0953 Roofers			31	
09530 Roofer				31
0954 Carpenters, Joiners and Parquetry Workers			37	
09540 Carpenter				37
09541 Master Carpenter[3]				48
09542 Carpenter's Helper[28]				23
0955 Plasterers			31	
09550 Plasterer				31
09551 Master Plasterer[3]				39
0956 Insulators			28	
09560 Insulation Installer				28
0957 Glaziers			26	
09570 Glazier				26
0959 Construction Workers n.e.c.			28	
09590 Paperhanger				24
09591 Master Paperhanger[3]				38
09592 Maintenance Man				28
09593 Skilled Construction Worker				46
09594 Construction Laborer n.e.c.				26
09595 Unskilled Construction Laborer				15
09596 House Builder[13]				36
096 STATIONARY ENGINE AND RELATED EQUIPMENT OPERATORS		38		
0961 Power-Generating Machinery Operators			42	
09610 Power Station Operator				42
0969 Stationary Engine and Related Equipment Operators n.e.c.			34	
09690 Stationary Engineer				34

APPENDIX A (Continued)

	Prestige Score			
Occupation	Major group	Minor group	Unit group	Occupation
097 MATERIAL-HANDLING AND RELATED EQUIPMENT OPERATORS, DOCKERS AND FREIGHT HANDLERS[26]		22		
0971 Dockers and Freight Handlers			20	
09710 Longshoreman				21
09711 Warehouse Hand				20
09712 Porter				17
09713 Railway, Airport Porter				18
09714 Packer				22
0972 Riggers and Cable Splicers[24]			32	
0973 Crane and Hoist Operators			32	
09730 Power Crane Operator				39
09731 Drawbridge Tender [27]				25
0974 Earth-Moving and Related Machinery Operators			32	
09740 Road Machinery Operator				32
0979 Material-Handling Equipment Operators n.e.c.[15]			28	
098 TRANSPORT EQUIPMENT OPERATORS		28		
0981 Ships' Deck Ratings, Barge Crews and Boatmen			29	
09810 Seaman				35
09811 Boatman				23
0982 Ships' Engine-Room Ratings			25	
09820 Ship's Engine-Room Hand				25
0983 Railway Engine Drivers and Firemen			34	
09830 Locomotive Engineer				43
09831 Locomotive Fireman				33
09832 Ore Train Motorman in Mine				27
0984 Railway Brakemen, Signalmen and Shunters			29	
09840 Railway Switchman, Brakeman				29
0985 Motor Vehicle Drivers			31	
09850 Taxi Driver				28
09851 Bus, Tram Driver				32
09852 Driver, Truck Driver				33
09853 Small Transport Operator				39
09854 Truck Driver's Helper				15
09855 Driving Teacher				41
0986 Animal and Animal-Drawn Vehicle Drivers			22	
09860 Animal Driver				18
09861 Wagoneer				26
0989 Transport Equipment Operators n.e.c.			24	
09890 Pedal-Vehicle Driver				17
09891 Railway Crossing Guard				30

APPENDIX A (Continued)

Occupation	Prestige Score			
	Major group	Minor group	Unit group	Occupation
099 MANUAL WORKERS n.e.c.		32		
0995 Skilled Workers n.e.c.			46	
09950 Skilled Worker				42
09951 Independent Artisan				50
0997 Semi-Skilled Workers n.e.c.			33	
09970 Factory Worker				29
09971 Apprentice				37
0999 Laborers n.e.c.			18	
09990 Laborer				19
09991 Unskilled Factory Laborer				18
09992 Contract Laborer				8
09993 Itinerant Worker				20
09994 Railway Track Worker				33
09995 Street Sweeper				13
09996 Garbage Collector				13
09997 Road Construction Laborer				20
10 MEMBERS OF THE ARMED FORCES	42			
100 MEMBERS OF THE ARMED FORCES		42		
1000 Members of the Armed Forces			42	
10000 High Armed Forces Officer[1]				73
10001 Armed Forces Officer[3]				63
10002 Non-Commissioned Officer				44
10003 Soldier				39
11 NEW WORKERS SEEKING EMPLOYMENT[25]	32			
110 NEW WORKERS SEEKING EMPLOYMENT[25]		32		
1100 New Workers Seeking Employment			32	
11000 New Worker Seeking Employment				32
12 UNCLASSIFIABLE OCCUPATIONS	40			
120 UNCLASSIFIABLE OCCUPATIONS		40		
1200 Unclassifiable Occupations			40	
12000 Unclassifiable Occupation				40
13 NOT IN LABOR FORCE	41			
130 NOT IN LABOR FORCE		41		
1300 Not in Labor Force			41	
13000 Lives Off Stock-Bond Income				55
13001 Lives Off Income from Property				57
13002 Lives Off Inheritance Income				48
13003 Agricultural Land Owner				65
13004 Lives Off Social Security				30
13005 Lives From Public Assistance				16
13006 Beggar				15

APPENDIX A (Continued)

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[1] Excluded from unit group average score.

[2] Score is average of 00330 Surveyor's Assistant, 00380 Mining Technician, and 00390 Engineer's Aide.

[3] Excluded from unit group average score. Assigned weight of .5 in previous version of the scale (Treiman, 1975).

[4] Score borrowed from 00720 Uncertified Nurse.

[5] Score borrowed from average of 00541 Agricultural Technician and 00620 Medical Assistant (half weighted).

[6] Score borrowed from 05990 Medical Attendant.

[7] Score borrowed from 00540 Medical Technician.

[8] Score borrowed from 00840 Computer Programmer.

[9] Score borrowed from unit group 0139 "Teachers n.e.c."

[10] Score borrowed from 01791 Entertainer.

[11] Score borrowed from 03220 Keypunch Operator.

[12] Score borrowed from unit group 0393 "Correspondence and Reporting Clerks."

[13] Excluded from unit group average since title was only rated in countries utilizing nonprestige criteria of evaluation. Score is from alternative version of scale based on all 60 places.

[14] Score borrowed from average of all other unit groups in minor group 062 "Agricultural and Animal Husbandry Workers" except 0628 "Farm Machinery Operators."

[15] Score borrowed from average of all unit groups in same minor group undesignated by footnotes.

[16] Occupation occurs only in countries utilizing nonprestige criteria, hence score is from alternative version of scale. Occupation score used for unit group score since no other occupations occur in unit group. This unit group score is excluded from any further aggregation.

[17] Score borrowed from average of unit groups 0732 "Sawyers, Plywood Makers. . ." and 0734 "Paper Makers."

[18] Score borrowed from 07340 Paper Maker.

[19] Score borrowed from 07490 Chemical Worker.

[20] Score borrowed from 08030 Leather Worker.

[21] Score borrowed from 08010 Shoemaker, Repairer.

[22] Score borrowed from 08530 Electronic Assembler.

[23] Score borrowed from unit group 0749 "Chemical Processers and Related Workers n.e.c.

[24] Score borrowed from unit group 0973 "Crane and Hoist Operators."

[25] Score borrowed from average score for major group 07 "Production and Related Workers. . . ."

[26] Weighted average of unit group scores. Weights derived from the occupational distributions of India and the U.S. See Chapter 8 for details.

[27] Weighted .5 when computing unit group score in previous version of scale (Treiman, 1975); given full weight in current version.

[28] Excluded from unit group average; included in unit group average in previous version of scale (Treiman, 1975).

[29] Code changed from 05313 in previous version of scale (Treiman, 1975); unit group averages for 0530 and 0531 modified in consequence.

APPENDIX B

EVENING TELEVISION PROGRAMS

Evening Television

Week	Date	Time	Network	Program	No. of Elderly	Child/Elderly Interactions	*Nielsen Rating
1	1/30	7:30-8:00	CBS	The Price Is Right	1	No	
1	1/31	7:30-8:00	CBS	$25,000 Pyramid	0	No	
1	2/1	9:30-10:00	ABC	Charlie's Angels	1	No	5
1	2/2	8:30-9:00	CBS	The Waltons	1	No	33
1	2/3	7:30-8:00	ABC	Wide World of Animals	0	No	
1	2/3	9:00-9:30	NBC	The Rockford Files	0	No	52
2	2/6	9:00-9:30	CBS	M-A-S-H	1	No	4
2	2/7	8:00-8:30	CBS	Celebrity Challenge of the Sexes	0	No	128
2	2/7	9:00-9:30	CBS	CBS Tuesday Night Movie (Hustle)	1	No	50
2	2/8	8:00-8:30	NBC	The Life and Times of Grizzly Adams	2	No	59
2	2/9	7:30-8:00	NBC	Family Feud	0	No	
2	2/9	8:00-8:30	ABC	Welcome Back Kotter	1	No	36
2	2/9	9:30-10:00	ABC	Carter Country	0	No	41
2	2/10	7:30-8:00	CBS	Candid Camera	6	Yes	
2	2/10	9:00-9:30	NBC	The Rockford Files	1	No	52
3	2/13	7:30-8:00	NBC	$100,000 Name That Tune	0	No	

*Season Average Ranking: September 11 - April 9, 1978

Evening Television

Week	Date	Time	Network	Program	No. of Elderly	Child/Elderly Interactions	Nielsen Rating
3	2/13	8:00-8:30	NBC	The Bob Hope Classic Comedy Special From Palm Springs	1	No	
3	2/13	8:30-9:00	NBC	The Bob Hope Classic Comedy Special From Palm Springs	1	No	
3	2/13	9:00-9:30	NBC	King (Mini Series)	0	No	
3	2/14	9:00-9:30	ABC	Three's Company	0	No	3
3	2/16	9:30-10:00	ABC	John Denver in Australia	0	No	
3	2/17	7:30-8:00	CBS	Candid Camera	4	Yes	
3	2/17	8:00-8:30	NBC	CPO Sharkey	0	No	87
3	2/17	8:30-9:00	CBS	The New Adventures of Wonder Woman	0	No	87
4	2/20	7:30-8:00	ABC	The Muppett Show	0	No	
4	2/21	8:00-8:30	NBC	Movie (The Awakening Land)	0	No	20
4	2/23	9:00-9:30	NBC	What Really Happened to the Class of '65	2	No	*
4	2/23	9:30-10:00	NBC	What Really Happened to the Class of '65	2	No	*
4	2/24	7:30-8:00	ABC	Wide World of Animals	0	No	
5	2/27	7:30-8:00	ABC	The Muppet Show	1	No	

* This episode was not given a Nielsen rating because of its two hour length, thereby being considered a movie-length episode.

Evening Television

Week	Date	Time	Network	Program	No. of Elderly	Child/Elderly Interactions	Nielsen Rating
5	2/27	8:00-8:30	CBS	Good Times	0	No	62
5	2/28	9:00-9:30	ABC	Three's Company	0	No	3
5	3/1	9:00-9:30	NBC	Black Sheep Squadron	0	No	66
5	3/3	9:00-9:30	ABC	ABC Friday Night Movie (Having Babies III)	0	No	47
6	3/6	7:30-8:00	ABC	The Muppet Show	0	No	
6	3/6	9:30-10:00	ABC	ABC Monday Night Movie (The Seven-Ups)	1	No	20
6	3/7	7:30-8:00	CBS	$25,000 Pyramid	0	No	
6	3/9	8:30-9:00	CBS	Julie Andrews: One Step Into Spring	0	No	
6	3/9	9:00-9:30	ABC	Barney Miller	1	No	18
7	3/14	7:30-8:00	ABC	Sha Na Na	0	No	
7	3/14	8:30-9:00	ABC	Laverne and Shirley	0	No	
7	3/15	9:00-9:30	NBC	Black Sheep Squadron	0	No	6
7	3/16	8:00-8:30	ABC	Welcome Back Kotter	2	No	36
7	3/17	7:30-8:00	CBS	Candid Camera	1	Yes	
7	3/17	9:30-10:00	ABC	ABC Friday Night Movie (Buster and Billie)	2	No	47
8	3/28	9:30-10:00	NBC	Movie (The Cops and Robin)	1	Yes	
8	3/29	7:30-8:00	CBS	When Havoc Struck: Earthquake	3	No	

Evening Television

Week	Date	Time	Network	Program	No. of Elderly	Child/Elderly Interactions	Nielsen Rating
8	3/29	8:00-8:30	CBS	A Special Evening With Carol Burnett	1	No	
8	3/29	8:30-9:00	ABC	Eight Is Enough	0	No	15
8	3/30	8:30-9:00	CBS	The Waltons	2	No	33
8	3/31	9:00-9:30	CBS	The Incredible Hulk	3	No	30
8	3/31	9:30-10:00	NBC	Richie Brockelman: Private Detective	0	No	71
9	4/3	9:30-10:00	ABC	Cher Special	0	No	
9	4/4	7:30-8:00	ABC	Sha Na Na	1	No	
9	4/4	9:00-9:30	CBS	Tuesday Night Movie (Moonshine Express)	3	No	50
9	4/4	9:30-10:00	NBC	Movie (Emergency)	2	No	
9	4/5	8:00-8:30	CBS	The Amazing Spider Man	3	No	12
9	4/6	9:00-9:30	NBC	Black Sheep Squadron	0	No	56
10	4/10	7:30-8:00	ABC	The Muppett Show	1	No	
10	4/10	9:30-10:00	CBS	One Day At A Time	0	No	7
10	4/11	8:00-8:30	NBC	Chuck Barris Rah Rah Show	2	No	131
10	4/12	8:00-8:30	ABC	Eight Is Enough	1	No	15
10	4/12	8:30-9:00	CBS	The Amazing Spider Man	2	No	12

Evening Television

Week	Date	Time	Network	Program	No. of Elderly	Child/Elderly Interactions	Nielsen Rating
10	4/12	9:30-10:00	NBC	NBC Movie (Who is Harry Kellerman and Why Is He Saying These Terrible Things About Me?)	0	No	
10	4/13	8:30-9:00	CBS	The Waltons	1	No	33

APPENDIX C

SATURDAY MORNING TELEVISION PROGRAMS

Saturday Morning Television

Week	Date	Time	Network	Program	No. of Elderly	Child/Elderly Interactions
1	1/28	9:00-9:30	NBC	Space Sentinels	1	No
1	1/28	9:30-10:00	ABC	Scooby's All Star Laff-a-Lumpics	2	No
1	1/28	11:00-11:30	ABC	The Krofft Supershow	0	No
2	2/4	9:00-9:30	NBC	Harlem Globetrotters	0	No
2	2/4	11:30-12:00	CBS	Secrets of Isis	1	No
3	2/11	10:30-11:00	NBC	(The Fun Machine) The Pink Panther Show	1	No
3	2/11	11:00-11:30	CBS	Batman/Tarzan Adventure Hour	1	No
4	2/18	8:00-8:30	NBC	Hong Kong Phooey	1	No
4	2/18	10:30-11:00	CBS	Batman/Tarzan Adventure Hour	2	No
5	2/25	9:00-9:30	CBS	Bugs Bunny/Roadrunner Show	0	No
5	2/25	10:30-11:00	ABC	Scooby's All Star Laff-a-Lympics	3	No
6	3/4	10:00-10:30	CBS	Bugs Bunny/Roadrunner Show	2	No
7	3/11	8:30-9:00	ABC	Super Friends	2	No
8	3/18	9:00-9:30	NBC	Harlem Globetrotters	3	No
8	3/18	11:00-11:30	ABC	Krofft Supershow	0	No
8	3/18	11:30-12:00	ABC	Krofft Supershow	0	No

Saturday Morning Television

Week	Date	Time	Network	Program	No. of Elderly	Child/Elderly Interactions
9	4/22	11:00-11:30	CBS	Wonderama	0	No
10	4/29	9:00-9:30	NBC	Harlem Globetrotters	3	No
10	4/29	9:30-10:00	NBC	The Herculoids	0	No
10	4/29	10:30-11:00	CBS	Batman/Tarzan Adventure Hour	1	No

APPENDIX D

EXTENT TO AND MANNER IN WHICH THE ELDERLY WERE PORTRAYED IN THE EVENING PROGRAMS ANALYZED

Evening Television

Program	Character Name	Sex	Race	SES	Role				Occupation	Full/Part-time		Occupational Ranking
					Major/Minor		Achieved/Ascribed					
The Price Is Right	Jane Johnson	F	W	Middle		X		X	Unknown			—
Charlie's Angels	Not Given *	F	W	Middle		X	X		Diner Manager	X		35
	Mr. Garrison	M	W	Upper		X		X	Retired			30
The Waltons	Grandpa	M	W	Middle	X			X	Unknown			—
M-A-S-H	Colonel Potter	M	W	Middle	X		X		Army Officer	X		73
The CBS Tuesday Night Movie (Hustle)	Not Given	M	W	Middle		X	X		Police Commissioner	X		75
The Life and Times of Grizzly Adams	Jack	M	W	Lower	X		X		Trapper	X		6
	Captain Nathaniel Morgan	M	W	Middle	X			X	Retired			30
Welcome Back Kotter	Mr. Woodman	M	W	Middle	X		X		High School Vice Principal	X		72
Carter Country	Mr. Jasper *	M	W	Middle		X	X		Policeman	X		40
Candid Camera	Allen Funt	M	W	Upper	X		X		Television Show Host	X		68
	Not Given	M	W	Middle	X			X	Unkown			—
	Not Given	M	W	Middle	X			X	Unknown			—
	Not Given	M	W	Lower	X			X	Unknown			—
	Mr. Segal	M	W	Middle	X			X	Unknown			—

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*Those characters (designated by a single asterisk) were in the 55-59 age group but were not included in any of the analyses.

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Evening Television

Program	Character Name	Sex	Race	SES	Role				Occupation	Full/Part-time		Occupational Ranking
					Major/Minor		Achieved/Ascribed					
Candid Camera (cont'd)	Not given	F	W	Middle	X			X	Retired			30
The Rockford Files	Dr. Brinkman	M	W	Upper	X		X		Crime Figure			--
** The Bob Hope Classic Comedy Special From Palm Springs (2)	Bob Hope	M	W	Upper	X		X		Comedian	X		33
King (Mini Series)	Bull Connor *	M	W	Middle		X	X		Commissioner for Public Safety	X		63
Candid Camera	Allen Funt	M	W	Upper	X		X		Television Show Host	X		68
	Not Given	M	W	Lower	X			X	Unknown			30
	Not Given	M	W	Lower	X			X	Unknown			40
	Not Given	M	B	Lower	X			X	Unknown			--
	Not Given *	F	B	Lower	X			X	Temporary Receptionist		X	38
** What Really Happened to the Class of '65 (2)	Mr. Spencer	M	W	Middle		X		X	Unknown			--

** Because two half-hour segments of these programs were randomly selected, the elderly characters portrayed were counted twice in the analyses.

Evening Television

Program	Character Name	Sex	Race	Ses	Role				Occupation	Full/Part Time		Occupational Ranking
					Major/Minor		Achieved/Ascribed					
	Zodie Porter	F	B	Lower		X		X	Unknown			--
The Muppet Show	Not Given	M	W	Lower		X		X	Unknown			--
ABC Friday Night Movie (Having Babies III)	Not Given*	M	W	Middle		X	X		Service Station Manager	X		38
Black Sheep Squadron	Admiral*	M	W	Middle		X	X		Armed Forces Officer	X		73
ABC Monday Night Movie (The Seven-Ups)	Bert	M	W	Lower		X	X		Barber	X		30
	Max*	M	W	Middle	X		X		Crime Figure			--
Barney Miller	Mr. Lujack	M	W	Lower		X		X	Unknown			--
	Not Given*	M	W	Lower		X	X		Emergency Aid Worker	X		42
Laverne and Shirley	Mr. DiFazio*	M	W	Middle	X		X		Owner/Manager of Restaurant	X		48
Laverne and Shirley	Nick Martino*	M	W	Middle		X	X		Crime Figure			--

Evening Television

Program	Character Name	Sex	Race	SES	Role				Occupation	Full/Part Time		Occupational Ranking
					Major/Minor		Achieved/Ascribed					
Welcome Back Kotter	Mr. Woodman	M	W	Middle		X	X		School Vice-Principal	X		72
	Not Given	M	W	Middle		X	X		Soda Counter Clerk	X		16
Candid Camera	Allen Funt	M	W	Upper	X		X		Televison Show Host	X		72
	Not Given *	M	W	Lower	X			X	Wallpaper Hanger		X	24
ABC Friday Night Movie (Buster & Billie)	Not Given	M	W	Lower		X	X		Unknown			--
	Not Given	F	W	Lower		X	X		Hat Stand Clerk	X		38
Movie (The Cops and Robin)	Officer Cleaver	M	W	Middle	X		X		Policeman	X		40
When Havoc Struck	Glen Ford	M	W	Upper	X		X		Unknown			--
	W. C. Fields	M	W	Upper		X	X		Actor	X		63
	Not Given	M	W	Lower		X	X		Unknown			--
A Special Evening With Carol Burnett	Ella Fitzgerald *	F	B	Upper		X	X		Singer	X		32

Evening Television

Program	Character Name	Sex	Race	SES	Role				Occupation	Full/Part Time		Occupational Ranking
					Major/Minor		Achieved/Ascribed					
	Perry Como *	M	W	Upper		X	X		Singer	X		32
	Ray Charles *	M	B	Upper		X	X		Singer	X		32
A Special Evening with Carol Burnett (Cont'd)	Bing Crosby	M	W	Upper		X	X		Singer	X		32
The Waltons	Grandma	F	W	Middle	X			X	Unknown			--
	Grandpa	M	W	Middle	X			X	Lumber Mill Hand		X	30
The Incredible Hulk	Norman Abrams	M	W	Middle	X		X		Arcade Manager	X		unclassifiable
	Jason Laird	M	W	Upper	X		X		Crime Figure	X		--
	Leo Kahn	M	W	Lower		X	X		Warehouse Foreman	X		unclassifiable
Sha Na Na	Not Given	F	W	Lower		X		X	Unknown			--
Tuesday Night at the Movies (Moonshine Express)	Mr. Hammer	M	W	Lower		X	X		Moonshiner	X		6
	Sweetwater *	M	W	Middle		X	X		Moonshiner	X		6

Evening Television

Program	Character Name	Sex	Race	SES	Role: Major	Role: Minor	Role: Achieved	Role: Ascribed	Occupation	Full time	Part time	Occupational Ranking
	Preacher Higgins	M	W	Lower		X	X		unknown	X		***
	Mr. Green	M	W	Middle		X	X		Lawyer	X		71
Movie (Emergency)	Captain	M	W	Middle	X		X		Sea Captain	X		63
	Barney	M	W	Lower	X		X		Ship's Mate	X		60
	Maggie *	F	W	Middle	X			X	Unknown			--
The Amazing Spider Man	Mr. Jamison	M	W	Upper		X	X		Newspaper Editor	X		65
	Dr. Bailer	M	W	Middle	X		X		College Professor	X		78
	Mr. White	M	W	Upper	X		X		Crime Figure			--
The Muppet Show	George Burns	M	W	Upper	X		X		Entertainer	X		63
Chuck Barris Rah Rah Show	Not Given	M	W	Middle	X		X		Animal Trainer	X		33
	Mr. Taylor	M	B	Middle	X		X		Musical Entertainer	X		32
Eight Is Enough	Not Given	M	W	Middle		X	X		Hotel Desk Clerk			unclassifiable

***Although the character was referred to as Preacher Higgins, there was no verification of this occupation in the segment.

Evening Television

Program	Character Name	Sex	Race	SES	Role				Occupation	Full/Part Time		Occupational Ranking
					Major/Minor		Achieved/Ascribed					
The Amazing Spider Man	Mr. Jamison	M	W	Upper		X	X		Unknown			--
	Mr. White	M	W	Upper	X		X		Crime Figure			--
NBC Monday Night Movie (Who Is Harry Kellerman and Why Is He Saying These Terrible Things About Me?)	Not Given*	M	W	Middle		X	X		Lawyer	X		71
	Leon Solloway*	M	W	Middle		X	X		Deli Owner	X		35
The Waltons	Grandpa	M	W	Middle	X			X	Lumber Mill Hand		X	30

APPENDIX E

EXTENT TO AND MANNER IN WHICH THE ELDERLY WERE PORTRAYED IN THE SATURDAY MORNING PROGRAMS ANALYZED

Saturday Morning Television*

Program	Character Name	Sex	Race	SES	Role				Occupation	Full/Part Time		Occupational Ranking
					Major/Minor		Achieved/Ascribed					
Space Sentinels	Not Given	M	W	Upper		X		X	Wizard	X		40
Scooby's All-Star Laff-a-Lympics	Captain Clemons	M	W	Lower	X		X		Sea Captain	X		63
	Not Given	M	W	Lower		X		X	Unknown			--
The Krofft Supershow	Aunt Agatha *	F	W	Middle		X	X		History Teacher	X		64
The Secrets of Isis	Dr. Rogers	M	W	Upper		X	X		Veterinarian	X		61
The Fun Machine/Pink Panther Show	Not Given	M	W	Lower		X	X		Cabin Boy	X		23
Batman/Tarzan Adventure Hour	King Aga	M	W	Upper	X			X	King	X		40
Hong Kong Phooey	Professor Crosshatch	M	W	Middle	X		X		Zoologist	X		69
Batman/Tarzan Adventure Hour	Commissioner	M	W	Middle		X	X		City Police Commissioner	X		75
	Professor Irwin	M	W	Middle	X		X		Professor/Inventor	X		78

*Those characters (designated by the single asterisk) were in the 55-59 age group but were not included in any of the analyses.

Saturday Morning Television

Program	Character Name	Sex	Race	SES	Role				Occupation	Full/Part Time		Occupational Ranking
					Major/Minor		Achieved/Ascribed					
Scooby's All Star Laff-a-Lympics	Nettie	F	W	Lower		X	X		Crime Figure			--
	Ebenezer Crab	M	W	Lower	X		X		Crime Figure			—
	Mr. Speck	M	W	Middle		X	X		Optician	X		57
Bugs Bunny/ Roadrunner Show	Maestro	M	W	Upper		X	X		Conductor	X		unclassifiable
	Commissioner	M	W	Middle		X	X		Police Commissioner	X		75
Super Friends	Not Given	M	W	Middle		X		X	Unknown			--
	Not Given	M	W	Middle		X	X		Ski Resort Worker	X		unclassifiable
The Harlem Globetrotters	Granny	F	W	Lower		X	X		Bus Driver	X		26
	Sam Swellfellow	M	W	Upper	X		X		Ski Resort Owner	X		67
	Not Given	M	W	Middle		X	X		Storekeeper	X		42
The Krofft Supershow	Colonel *	M	W	Middle	X		X		Crime Figure	X		--
	Not Given *	M	W	Lower	X		X		Unknown	X		--

Saturday Morning Television

Program	Character Name	Sex	Race	SES	Role				Occupation	Full/Part Time		Occupational Ranking
					Major/Minor		Achieved/Ascribed					
The Harlem Globetrotters	Granny	F	W	Lower	X		X		Bus Driver	X		26
	Silas Craig	M	W	Upper	X		X		Rodeo Owner	X		63
	Unknown	M	W	Lower		X	X		Cowboy	X		23
Batman/Tarzan Adventure Hour	Commissioner	M	W	Middle	X		X		City Police Commissioner	X		75

APPENDIX F

NOTES ON GENERALIZABILITY ANALYSIS

NOTES ON GENERALIZABILITY ANALYSIS

Charles E. Johnson[1]

Generalizability theory is an approach to evaluating the aspect of measurement that is traditionally called reliability. It is particularly relevant to the problem of evaluating measurement techniques which simultaneously involve several dimensions, (e.g., two or more raters observing subjects on two or more occasions on two or more items). Generalizability theory is a way of conceptualizing the extent to which measurements can be generalized across various measurement conditions (e.g., to other raters, occasions and items).

Among the Advantages of the Generalizability Approach:

1. It forces a researcher to consider the problem of generalization.
2. It provides specific measures of the influence of particular factors on measurement error.
3. It provides a systematic basis for modifying a measurement procedure in order to decrease the effects of specific sources of measurement error.

Consider a problem of generalization. Suppose a researcher is interested in measuring a hypothetical trait, "persistence" of young children. Suppose persistence has been defined in terms of several aspects of behavior and as a stable trait. The researcher designs an observational procedure which uses several items, one or more raters, and expects to sample behavior for each child across several different occasions. Each child is to be rated by each observer on each item on each observation occasion. (So if there are two raters, five items and three occasions, each child would be rated 30 times or there would be 30 response measures per child.) A "persistence" score (per child) is the mean for a child across all 30 response measures.

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[1] Measurement and Statistics Department, College of Education, University of Maryland. No part of this program may be used or reproduced without the written permission of Dr. Johnson.

Some Questions About the Proposed Measurement Procedure:

1. Do we wish to consider the measurements obtained with the raters to be used in the study to have essentially the same meaning as would measurements obtained under other sets of raters with similar backgrounds and training? It seems reasonable to answer "yes" to this question, since selection of raters is arbitrary within certain limits regarding training or background. If so, we wish to generalize scores across raters, and the particular sample of raters to be used in the measurement procedure will most likely contribute some degree of error to the measurement outcome (since alternative sets of raters would provide somewhat different measurement results, even over the same items and occasions).

2. Do we wish to generalize across items other than those used? Yes, if there are other or alternative item sets which could just as well be used in the measurement process. The peculiarities of the particular item sample selected would most likely lead to somewhat different results than an equally acceptable but different sample of items.

3. Obviously, since the trait was defined as relatively stable, it is necessary to evaluate the extent to which the measurement results generalize across occasions.

These seem to be very basic measurement considerations. There may be other conditions considered important (e.g., variation in instructions given to raters or in the format used in the measurement process). Using the generalizability approach, a researcher must identify those conditions which seem most important to generalize across.

Such conditions of measurement are called MEASUREMENT FACETS in generalizability theory. So, above we have the facets: items, raters, and occasions. Each item is a specific level of the facet items. We can conceptualize a universe of possible or equally admissable items--our measurement process involves a sample from that universe of items.

One can think of innumerable facets of a measurement process. A researcher, therefore, must have some advance notions of facets which may be particularly important to generalize across.

There are three ways in which a facet can be treated or considered within a generalizability study:

1. A facet may be SYSTEMATICALLY VARIED. In this case the facet is a factor in ANOVA. This enables ESTIMATION OF SPECIFIC CONTRIBUTIONS of the facet to error of measurement. Facets considered most important to the researcher should be treated this way.

2. A facet may be HELD CONSTANT--i.e., only one level of that facet is present in the generalizability study. (e.g., only one test administrator might be used in the study, or one item, or all testing might be done in one setting.) If a facet is treated this way in the generalizability study, then the generalizability study will provide NO INFORMATION about the effects of the facet on score variation, and the study will not indicate the extent to which measurement results generalize across various possible levels of that facet. Holding constant an important facet would be a serious error in evaluating a measurement procedure. A researcher should carefully consider possible facets

in order not to omit sampling levels of some critical facet.

3. A facet may be allowed to FREELY VARY within the generalizability study (as well as in the actual measurement process). If you were to list 100 facets of a measurement process, most would probably fall into this category. (e.g., aspects which vary from moment to moment and from person to person during measurement which are either beyond the control of the process or there is no special attempt to control--such as many specifics of a testing room, or perhaps the test administrator, or noise level during testing.) Since such facets do vary during the measurement process, their effects will be lumped together in an UNDIFFERENTIATED ERROR measure in the outcome of a generalizability study and not specifically estimated as with systematically varied facets.

The various facets define a UNIVERSE OF GENERALIZATION. In theory, this universe consists of the responses of all persons under all combinations of measurement conditions (e.g., every child observed by every possible rater under every item on every occasion). The person's behavior in the universe is characterized by a UNIVERSE SCORE which is conceptualized as the mean of that person's responses across all possible conditions. Any measurement procedure, then, is considered a sample of observations from the theoretical universe of generalization. The researcher's concern is how well this sample represents the universe.

The adequacy of the sample can be evaluated in two respects (analogous to classical reliability theory or procedures). 1) How accurately does the obtained sample score for a person (the person's mean across the sample of responses) reflect the person's theoretical universe score? To evaluate this we need an error of measurement--such as the standard error of measurement obtained with classical reliability methods. 2) To what extent will the variance obtained in applications of the measurement process indicate universe score differences between the subjects (analogous to true score differences in classical theory) and to what extent will it indicate other factors (error)? For this purpose an estimate of the ratio of universe score variance to expected obtained score variance will be obtained for any prospective measurement process. (This is analogous to the reliability coefficient in classical theory and is referred to in generalizability as the COEFFICIENT OF GENERALIZABILITY).

Generalizability Analysis, Response Matrix, Response Variance Components

The main purpose of a generalizability analysis is to estimate the extent to which each facet contributes to measurement error and to use this information to modify the measurement procedure. In order to do this it is necessary to sample at least two levels of each facet. (Repeated measures are necessary in any reliability method.)

There must be at least one facet--the actual number is dependent upon the purposes of measurement (the intended extent of generalization). Traditional reliability analyses (e.g., test-retest or internal consistency) can be thought of as one-facet studies (and the results of the ANOVA procedures presented here will be identical in most cases to the results of the correlational analysis applied using traditional or classical methods).

The method of analysis to be presented here begins with an analysis of variance of the SAMPLE RESPONSE MATRIX obtained in the generalizability study. The ANOVA will have a factor for persons and for each of the systematically varied facets. So for the three facet situation discussed above, there would be a 4-way ANOVA. Each cell in the ANOVA would contain one observation based upon a person; facet A level, facet B level, facet C level intersect in the sample response matrix. (Each response is an intersect.)

The mean squares resulting from the ANOVA are used for estimating VARIANCE COMPONENTS for each main effect and interaction source of variability. The relative size of these variance components indicates the extent to which each source contributes to the total variability of the RESPONSES in the universe of generalization. The variance components are estimated using the Cornfield-Tukey method under either a random or mixed-model ANOVA. Any facets across which a researcher wishes to generalize are treated as random dimensions of the ANOVA. (It is assumed that the levels of such dimensions present in the measurement process are a random sample of the levels present in the universe.)

Person Scores, Score Components

Obtaining response variance components is an important intermediate step in the total analysis. The variance components are the building blocks for further aspects of the evaluation. Note that the variance components are of the responses of what has been referred to here as the response matrix. The scores of ultimate interest to the researcher, however, are the universe scores of persons--these scores are MEANS across a person's set of responses.

A score is theorized in generalizability theory (as in classical reliability) to consist of a sum of components. In generalizability theory there is a possible score component associated with each source in the ANOVA (in contrast to the two components usually identified in presentations of classical theory). The estimated variance components of the response matrix are used to estimate the variance components of person-scores. (There will be a score component corresponding to each response component). The variance components of scores obtained under some specific measurement sample sum to the expected variance of the set of person-scores.

The variance components of scores are related to the response components according to the relationship of the variance of a sampling distribution of a mean and the variance of the population being sampled. (The variance of a score component is the variance of the response component divided by the number of levels of that facet sampled in the measurement procedure.) Each level of a facet is considered a randomly selected observation from the universe of levels of a facet. The variance among levels of a facet in the universe is estimated by the response component for that source computed from generalizability data.

Because of the forementioned relationship of score components to response components, it is obvious that the size of score components associated with a particular facet depends upon the number of levels of that facet sampled in the measurement procedure. The estimated score component is obtained by dividing the estimated response component by the number of levels of the facet to be used in measurement. Doubling the number of items will, therefore, halve the contribution of an item source of error on the total error variance. Similarly, other error sources can be influenced by adjusting the sampling of levels for that source.

Each obtained score, in theory, contains a person component based on the theoretical universe score and other components which contribute to error of measurement. Since there is always only one person level per person score, the score variance component for persons does not change as a function of changing the sampling frequencies of the various facets--while the facet components decrease in size with increases in levels sampled for each. This leads to an increasing proportion of the total score variance being due to person differences as the number of levels sampled for each facet increases, because the amount of variance due to measurement error becomes proportionately smaller. The coefficient of generalizability, which is the ratio of the variance of the person component (or the variance component for persons) to the sum of all components contributing to person scores, will increase under these same conditions.

Summarizing the Strategy of a Generalizability Study

1. A researcher identifies relevant or important facets of the measurement process and defines a universe of generalization in terms of these facets.
2. Each facet is sampled in the generalizability study for the purpose of estimating generalizability. Generalizability can be estimated for various possible facet sampling plans.
3. A multiway ANOVA provides estimates of response variance components. The relative size of the response components indicates their influence on measurement error.

4. The contribution of a facet to measurement error of person scores is equal to the response variance component divided by the number of levels of that facet sampled in the application of the measurement procedure.

Procedures for Computing Response Variance Components (RVC's); Score Variance Components (SVC's); Error Variance and the Coefficient of Generalizability (GC).

The following discussion and examples are based upon a 2-facet situation where facet A is items and facet B is raters. Both items and raters are considered randomly sampled from a universe. The facets are crossed (i.e., each rater rates each subject on every item). The procedures with other types of designs are similar.

The model for the STRUCTURE OF A RESPONSE (a response is the smallest measured unit--here, the rating on one item by one rater of one person):

$$R(i,j,k) = U + P(i) + A(j) + B(k) + PA(i,j) + PB(i,k) + AB(j,k) + PAB,E(i,j,k)$$

where j,k components are defined as follows:

U -- Grand mean across all responses in the universe (neither responses nor persons will vary on U)

P(i) -- Person component for person i. Defined as person i's mean across all universe responses minus the grand mean. This effect represents the person's ability or trait level. All responses of person i will contain this component.

A(j) -- Item component for item j. Item mean across all responses to item j (in universe) minus the grand mean. All responses to item j will contain this component

B(k) -- Rater component for rater k. Rater k mean across all universe ratings by rater k minus the grand mean. All ratings by rater k will contain this component. It represents rater leniency (or a constant bias) by rater k.

PA(i,j) -- Interaction of person i and item j--based upon variation of person i's performance on item j (across raters) not accounted for by person i's trait level or the item's difficulty (level). For example, person i's person experience may make him particularly reactive to the content of item j.

PA(i,j) = PA(i,j) MEAN - P(i) - A(j) - U

PB(i,k) -- Interaction of person i and rater k--variation of person i's performance as rated by rater k (across all items) not accounted for by person ability or rater leniency.

PB(i,k) = PB(i,k) MEAN - (P)i - B(k) - U

AB(j,k) -- Interaction -- For example, rater k's tendency to be particularly lenient in rating with item k.

AB(j,k) = AB(j,k) MEAN - A(j) - B(k) - U

PAB,E(i,j,k) -- Reflects any residual variation not accounted for by previous sources, including:

1. any 3-way interaction--person i's peculiar response to the combination of item i and rater k;
2. all other sources of variation (E or error).

These sources (interaction and E) are confounded or inseparable. E is always confounded with the highest order interaction of persons and facets.

PAB(i,j,k) = R(i,j,k) - P(i) - A(j) - B(k) - PA(i,j) - PB(i,k) - AB(j,k) - U

Corresponding to the model, under the assumption that the components are independent, the variance of the universe response matrix is the sum of response variance components (RVC's).

VAR(R)= RVC(P) + RVC(B) + RVC(PA) + RVC(PB) + RVC(AB) + RVC(PAB,E)

There is no variance component for the grand mean, since it is constant across all responses. All other components vary from response to response (e.g., all responses based upon different items have different item components; all responses based on different persons have different person components; all responses based upon a different person-item combination have a different PA component; all responses based upon a different person-item-rater combination have a different PAB component).

In our example (with 7 persons, 3 items and 5 raters in the generalizability study) there are 105 responses (15 per person). Person scores are defined as means across the set of 15 responses. Each person score will contain a sample of response components, since each of the 15 responses consists of the sum of 8 components, according to the response model presented. (One can think of each person-score as consisting of 8 x 15 components (120) summed and then divided by 15.)

Analyzing the Composition of a Person Score: (mean of person's responses)

Each of the 15 responses contains U (the same constant). A score, then, contains (15 x U)/15 = U. (Since each response is divided by 15, each component of a response is also divided by 15.) Therefore, each score contains U.

Each of the 15 responses for a particular person contains the same value of P--so each score contains (15 x P)/15 = P. The P component differs from person to person but is the same for all responses of any one person.

There are three different item components (A(1), A(2), and A(3)), and each of the three appears in a person's score 5 times (since 5 raters rate on each item). A score, then, contains 5 x (A(1) + A(2) + A(3))/15 or just (A(1) + A(2) + A(3))/3, which is the mean of the three item components or the three levels of facet A.

Similarly, each of the 5 rater components, B(k), appear 3 times in the person score. 3 x (B(1) + B(2) + B(3) + B(4) + (B)5))/15 is the mean of the five levels of the rater facet. A person-score can be thought of as containing this mean as a component.

Five responses contain PA(1,1), one for each of the 5 raters; likewise for PA(1,2) and PA(1,3) (in the score for person 1). The person 1-item 1 interaction is present in each response of person 1 to item 1 (again there are 5 such responses with 5 raters). A score, then, contains 5 x (PA(1,1) + PA(1,2) + PA (1,3))/15 which equals the mean of the three different levels of PA interaction present in a score. By the same reasoning a person score contains the mean of levels of the other 2-way interaction components present (PB and AB).

Every response contains a different PAB interaction component (since each response is a different PAB intersect). Dividing the sum of the 15 PAB components by 15, therefore, provides the mean of all levels of the PAB source present in a score.

The MODEL FOR A SCORE will differ from that for a response since, as has been indicated above, the components of a score can be thought of as means of levels of the corresponding response components present in a score.

S(i) = U + P(i) + MA + MB + MPA + MAB + MPAB

where the M preceding the facet letters indicates that the component is a mean across the several levels of the facet.

One main interest in the application of a method is score variance and the extent to which the obtained score variance reflects person differences (or differences in universe scores of persons). The expected obtained score variance (EOSV) is the variance expected when a measurement procedure involves sampling a specified number of levels of each facet for each person in a sample of persons.

The score model contains 8 components corresponding to the response model. U and P(i) will be the same in both models. The remaining components in the score model are means of the sampled levels of corresponding response components.

It is essential to note that some of the score components will not necessarily contribute to variation of person scores because they are constants across persons:

U is always the same for all persons and thus cannot contribute either between person or between response variation.

MA will be the same for all persons if all persons take the same items, and thus, will not contribute to between-person variability under that commonly occurring condition.

MB, likewise, if all persons are rated by the same rater or raters, will be a constant and won't contribute to variance between persons.

MAB will not contribute to between-person variance, if all persons are measured using the same item-rater combinations. (i.e., if both MA and MB are constant).

Depending upon the design of the measurement procedure, therefore, MA, MB, and MAB may vary or be constant between persons. The person component and any person-facet interactions must always vary from person to person and, therefore, always contribute to between person variance. In the example above where all raters rate all persons on all items the EOSV contains score components for P and for all interactions with P.

The magnitude of score variance components (SVC's) is best explained in terms of the variance of a mean based upon N observations. As noted, each score component can be defined as a mean of a random sample of the levels of a facet or facet interaction source present in the measurement procedure. The variances of the levels of each facet in the universe are, then, response variance components (RVC's), previously discussed. The variances of components of scores (SVC's) based upon means of samples of levels from each facet source follow the relationship that a variance of a mean of N observations (variance of a sampling distribution of a mean) is equal to the universe variance divided by the sample size.

The SVC's contributing to EOSV in this example are:

SVC(P) = RVC(P) since each person score contains a sample of one person component.

SVC(PA) = RVC(PA)/N(A) since MPA is based upon N(A) levels of PA

SVC(PB) = RVC(PB)/N(B)

SVC(PAB,E) = RVC(PAB,E)/N(A) x N(B)

and EOSV = SVC(P) + SVC(PA) + SVC(PB) + SVC(PAB,E)

Note that the contribution to EOSV of any source or between person variance is 1/Nth of its RVC (where N is the number of levels of that source sampled). Since there are many alternative measurement sampling procedures possible for any measurement problem, this relationship enables the researcher to use the RVC's to forecast the EOSV for any proposed measurement procedure in order to estimate its generalizability.

The extent to which EOSV reflects person differences is measured by the ratio of SVC(P) to EOSV. This ratio is the coefficient of generalizability and indicates the proportion of EOSV associated with person universe score differences. One minus the ratio, of course, would indicate the proportion of EOSV associated with various sources of measurement error.

A generalizability study involves estimating RVC's and then using these RVC's to forecast EOSV, coefficient of generalizability and measurement errors under various facet sampling frequencies and various designs (e.g., crossed or nested facets).

Designs of Generalizability Studies

In evaluating a generalizability study it is important to realize the ways in which a facet can be related to the study. The most important outcomes of the study have to do with systematically varied facets. If a facet is held constant in the study, its effects on measurement error are not estimated. In example 1-1 below, the effect of scorers on measurement error is not estimated because only one scorer is present in the generalizability analysis. The one-facet study (Exp. 1-1) would not indicate scorer error and could produce a misleadingly high generalizability coefficient (if generalizability across scorers is intended--as is usually the case).

If a facet is allowed to vary unsystematically, as must occur with a multitude of possible influences in measurement situations (the facets may or may not be identified), then the combined influence of such facets is lumped into error and confounded in the analysis with the highest-order interaction (residual). For example, instruction to measurement subjects will vary from subject to subject in many ways, even when attempts are made to hold them constant. The effects of such variation, if any, are represented by E and are part of this undifferentiated error.

Following are briefly sketched designs for various types of generalizability studies:

1. A x P (one facet) - responses at all levels of facet A for each person.

   Exp. 1-1 -- persons respond to all items of a questionnaire administered by one scorer on one occasion in one setting.

   Exp. 1-2 -- persons rated by the same raters in one situation on one item.

Exp. 1-3 -- persons observed on a set of occasions (each person observed on each occasion) by one observer on one item.

In this design:

EOSV = RVC(P) + RVC(PA,E)/N(A)

Generalizability coefficient (GC) = RVC(P)/EOSV .

RVC(A) doesn't contribute to between-score variability of person-scores, since the main effects of all items are constants in person-scores.

2. A:P (one facet) - each person responds on different levels of facet A. (A is nested within persons.)

Exp. 2-1 -- each person rated by a different set of raters (one item, one situation, etc.).

Exp. 2-2 -- each person observed on a different set of occasions (or a different set of situations).

EOSV = RVC(P) + RVC(A,PA,E)/N(A)

GC = RVC(P)/EOSV

Since there are different raters (Exp. 2-1) for each person, the "A" component is not constant across persons. Variability of ratings within persons must be associated with either the A, PA, OR E SOURCES, and the design does not enable estimation of their separate effects (they are confounded). Error here will tend to be larger than with design 1-1 (other considerations constant), since the main effects of raters (rater leniency, for example) would contribute to EOSV.

3. A x B x P (two facets) - persons responses for combinations of the two facets. (completely crossed design--as is No. 9 below)

Exp. 3-1 -- same set of raters rate each person on the same item set (one occasion or situation).

Exp. 3-2 -- persons observed on a common set of occasions and with respect to the same items (one observer).

EOSV = RVC(P) + RVC(PA)/N(A) + RVC(PB)/N(B)

+ RVC(PAB,E)/((N(A) x N(B))

GC + RVC(P)/EOSV

The main effects of raters and items are constants across persons, so A,B, and AB components do not contribute to between-person variability (EOSV). Person-facet interactions always contribute to EOSV, since by definition they vary from person to person. Information from a generabilizability study of this design can be used to estimate or forecast EOSV and GC for any of the two-facet designs presented below with various degrees of nesting (4,5,6,7,8 below). This design involves the most complete separation of sources of variability associated with the two facets. The design also would enable estimating outcomes of applying the one-facet designs 1 and 2 previously presented.

4. (B:A) x P (two facets) - different levels of facet B nested within each level of facet A. The same set of B:A conditions for all persons.

Exp. 4-1 -- same raters (A) rate all persons, but rater 1 rates all persons on occasions (B) 1 and 2; rater 2 rates all persons on occasions 3 and 4; rater 3 on occasions 5 and 6; . . . . . .

Exp. 4-2 -- same set of occasions for each person, but a different set of raters rate the set of persons on each occasion.

Exp. 4-3 -- same set of raters (A), but each rater (or rater set) rates on a different subset of items.

EOSV = RVC(P) + RVC(PA)/N(A) + RVC(PB,PAB,E)/(N(A) x N(B))

GC = RVC(P)/EOSV

Effects of A,B and AB are still constants across persons.

PB and PAB,E are confounded.

5. A x (B:P) (two facets) - responses on different levels of B for each person.

Exp. 5-1 -- persons responses for the same set of items (A), but each person is observed on a different set of occasions (B). (one rater)

Exp. 5-2 -- the same team of raters rate each person, but each person is observed over a different set of occasions. (one item)

EOSV = RVC(P) + RVC(PA)/N(A) + RVC(B,PB)/N(B)
+ RVC(AB,PAB,E)/(N(A) x N(B)

GC = RVC(P)/EOSV

Due to nesting, the main effects of B and of AB contribute to EOSV and therefore to measurement error. Measurement error will be greater with this design, since there are more contributing sources.

6. B:(A x B) (two facets) - different levels of B for each PA combination.

Exp. 6-1 -- same raters rate each person, but each person is rated by each rater on a different set of occasions.

EOSV = RVC(P) + RVC(PA)/N(A) + RVC(B,PB,AB,PAB,E)/N(A) x N(B)

GC = RVC(P)/EOSV

7. (A x B):P (two facets) - different levels of both A and B for each person.

Exp. 7-1 -- different rater teams for each person, and teams observe each person on a different set of occasions.

EOSV = RVC(P) + RVC(A,PA)/N(A) + RVC(B,PB)/N(B)

+ RVC(AB,PAB,E)/N(A) x N(B))

GC = RVC(P)/EOSV

All sources contribute to measurement error with confounding, as indicated above.

8. B:A:P (two facets) - different levels of A per subject with different levels of B within each level of A (B nested within A which in turn is nested within P).

Exp. 8-1 -- different raters (A) per subject and each rater rates each subject on a different set of occasions (B).

Designs 9 to 14 are three-facet designs with a third facet "C" crossed with each of the conditions of designs 3 through 8.

9. C x A x B x P

10. C x (B:A) x P

11. C x A x (B:P)

12. C x B:(A x P)

13. C x (A x B):P

14. C x (B:A:P)

Consider design 12 above:

Exp. 12-1 -- the same rater team (A) rates all persons on a common item set (C). The rater teams (observing together) rate each person on a different set of occasions (B).

EOSV = RVC(P) + RVC(PA)/N(A) + RVC(PC)/N(C)

+ RVC(B,AB,PB,PAB)/(N(A) x N(B))

+ RVC (CB,CAB,CPB,PABC,E)/N(A) x N(B) x N(C))

GC=RVC(P)/EOSV

Nested designs for collecting measurement data may be preferable in some cases to completely crossed designs. It is typically preferable, for example, to nest occasions within raters rather than have all raters observe subjects on the same occasion as a team. This is true when raters tend to agree relatively well on observations on particular occasions, but there is large subject variability from occasion to occasion (subject-occasion interaction). By nesting occasions within raters, the sample of occasions within each person's score would be the number of raters times the number of occasions observed by a rater (rather than just the number of occasions, as would be the case with the crossed design), and the contribution to measurement error of the facet occasions would be reduced.

Consider the design (A:B) x P (where B is raters and A, occasions) in contrast to the design A x B x P. In the first design the PA component of a person's score is sampled N(A) x N(B) times (due to nesting) and in the second design the PA component is sampled N(A) times. Of course, in the first design the PA component is confounded or inseparable from the PAB,E component (the main effect of occasions), and if there is a very large main effect for occasions, it may offset the advantage of nesting. In any case, nesting patterns should be considered. Previous research or pilot generalizability studies may show the advantage of using a nested design for data collection. The completely crossed designs always provide the most information about sources of variability, even though they may not be preferable for data collection.

In evaluating generalizability a researcher must be aware of 'hidden facets'. These are facets held constant during a generalizability study and for which no information is, therefore, obtained concerning contribution to error of measurement. An example would be a generalizability study based upon only one rater--which would provide no estimates of a person-rater interaction. The resultant coefficient of generalizability would be higher than one taking into account rater error sources. If generalizability across raters is intended, the generalizability information would be misleading.

A generalizability study is intended to evaluate the instrument and ideally occurs before any use of the measurement instrument for testing research hypotheses. Cronbach (1972) refers to the use of the measurement instrument in research as a 'D' (Decision) study. Generalizability study analysis may suggest the optimal design for collection of measurement information in the 'D' study, as was suggested in the previous comparison of the completely crossed and nested designs.

In experimental situations it is often desirable to minimize individual differences of subjects, since individual differences of subjects receiving the same treatment contribute to the experimental error. If homogeneous subjects have been selected for the experiment, one would not expect to obtain a high generalizability coefficient due to the relatively small P variance component. The researcher's emphasis in evaluating the research instrument should, therefore, be on the estimated size of measurement error and the type of facet sampling which would have the greatest error-reducing effect. (This would also raise the generalizability coefficient. But the level of generalizability coefficient would be expected to be small due to small individual differences.)

Generalizability or reliability measures are intended for evaluating consistency or precision of obtained measures but are not intended to provide more general information about the meaning or usefulness (validity) of the measures. Without generalizability or reliability, of course, the broader meaningfulness or usefulness of an instrument is necessarily limited.

APPENDIX G

EVALUATION FORMS

Network: ABC ___ : NBC ___ : CBS ___

Child/Elderly Interactions: Yes ( )
No ( )

Name of Show: ______________________ Date: ________ Time: ________

NAME	AGE	SEX	RACE	MAJOR	MINOR	ASCRIBED	ACHIEVED	OCCUPATION	FULL	PART	SOCIO-ECONOMIC STATUS

Comments:

Below are listed a series of polar adjectives accompanied by a scale. You are asked to place a check mark along the scale at a point which in your judgment best describes the social object indicated. Make each item a separate and independent judgment. Do not worry or puzzle over individual items. Do not try to remember how you have marked earlier items even though they may seem to have been similar. It is your first impression or immediate feeling about each item that is wanted.

Social Object: ____________________

Progressive	___	___	___	___	___	___	___	Old Fashioned
Inconsistent	___	___	___	___	___	___	___	Consistent
Independent	___	___	___	___	___	___	___	Dependent
Poor	___	___	___	___	___	___	___	Rich
Generous	___	___	___	___	___	___	___	Selfish
Unproductive	___	___	___	___	___	___	___	Productive
Busy	___	___	___	___	___	___	___	Idle
Insecure	___	___	___	___	___	___	___	Secure
Strong	___	___	___	___	___	___	___	Weak
Unhealthy	___	___	___	___	___	___	___	Healthy
Active	___	___	___	___	___	___	___	Passive
Ugly	___	___	___	___	___	___	___	Handsome
Cooperative	___	___	___	___	___	___	___	Uncooperative
Pessimistic	___	___	___	___	___	___	___	Optimistic
Satisfied	___	___	___	___	___	___	___	Dissatisfied
Resigned	___	___	___	___	___	___	___	Expectant
Flexible	___	___	___	___	___	___	___	Inflexible
Dejected	___	___	___	___	___	___	___	Hopeful
Organized	___	___	___	___	___	___	___	Disorganized
Sad	___	___	___	___	___	___	___	Happy
Friendly	___	___	___	___	___	___	___	Unfriendly
Untidy	___	___	___	___	___	___	___	Neat
Trustful	___	___	___	___	___	___	___	Suspicious
Dependent	___	___	___	___	___	___	___	Self-Reliant
Liberal	___	___	___	___	___	___	___	Conservative
Uncertain	___	___	___	___	___	___	___	Certain
Tolerant	___	___	___	___	___	___	___	Intolerant
Unpleasant	___	___	___	___	___	___	___	Pleasant
Ordinary	___	___	___	___	___	___	___	Eccentric
Defensive	___	___	___	___	___	___	___	Aggressive
Exciting	___	___	___	___	___	___	___	Dull
Indecisive	___	___	___	___	___	___	___	Decisive

APPENDIX H

ANALYSIS OF VARIANCE SUMMARY TABLES

Mean Scores for Assistance in Interpreting ANOVA Tables

Person	Dimension Mean Scores Effectiveness	Autonomous	Acceptability
1. Mr. Jamison	36.889	37.333	53.500
2. Woman in Hat Stand	37.333	41.467	47.733
3. Dr. Brinkman	43.267	51.067	51.733
4. Colonel Potter	44.579	47.579	68.526
5. Dr. Bailor	46.556	52.111	58.778
6. Bing Crosby	47.458	53.708	81.292
7. Desk Clerk	38.176	40.412	42.529
8. Bert the Barber	38.563	41.813	66.750
9. Barney	39.700	44.350	66.650
10. Leo Kahn	40.526	37.789	54.526
11. Female Sr. Citizen	47.125	49.781	78.906
12. Bob Hope	51.474	55.263	79.684
13. Mr. Lujak	27.882	26.059	47.471
14. Male Food Tester	35.556	29.167	72.722
15. Jack the Pioneer	35.790	36.895	56.211
16. Grandpa Walton	45.522	48.609	73.348
17. Allen Funt	46.316	49.368	73.579
18. Chimp Trainer	48.118	49.471	72.529

Mean Scores for Assistance in Interpreting ANOVA Tables

	Dimension Mean Scores Effectiveness	Autonomous	Acceptability
Elderly			
1. Pop	33.222	34.556	71.897
2. Uncle Cleaver*	42.529	44.353	75.588
3. Colonel Potter	45.000	48.885	70.423
4. Allen Funt*	47.760	49.720	74.560
5. Bob Hope	48.115	52.961	75.000
6. Allen Funt*	52.526	52.632	80.053
* Appearing with Children			
Child			
1. little girl*	42.793	40.483	71.516
2. boy describing teacher*	43.742	42.000	71.516
3. Elizabeth Walton	43.810	42.143	82.571
4. young boy	46.563	45.250	78.000
5. Penny	49.167	47.111	79.222
6. Eric*	50.667	48.393	78.454
* Appearing with Elderly			
Adult			
1. Schneider	42.891	42.267	69.208
2. Tom Kennedy	45.306	47.000	73.176

Table 51

Analysis of Variance Summary Table of Effectiveness Dimension
for Elderly Behaviors - Subgroup 1

Source	df	SS	MS	F Ratio	F Probability
Between Groups	15	1906.002	127.067	2.250	.010
Within Groups	93	5253.082	56.485		
Total	108	7159.084			

Table 52

Analysis of Variance Summary Table of Autonomy Dimension
for Elderly Behaviors - Subgroup 1

Source	df	SS	MS	F Ratio	F Probability
Between Groups	15	3903.539	260.236	6.332	.000
Within Groups	93	3822.039	41.097		
Total	108	7725.578			

Table 53

Analysis of Variance Summary Table of Acceptability Dimension
for Elderly Behaviors - Subgroup 1

Source	df	SS	MS	F Ratio	F Probability
Between Groups	15	15862.238	1057.483	9.383	.000
Within Groups	93	10481.180	112.701		
Total	108	26343.418			

Table 54

Analysis of Variance Summary Table of Effectiveness Dimension for Elderly Behaviors - Subgroup 2

Source	df	SS	MS	F Ratio	F Probability
Between Groups	5	2947.490	589.498	10.400	.000
Within Groups	117	6631.586	56.680		
Total	122	9579.076			

Table 55

Analysis of Variance Summary Table of Autonomy Dimension for Elderly Behaviors - Subgroup 2

Source	df	SS	MS	F Ratio	F Probabilit
Between Groups	5	4210.877	842.175	15.697	.000
Within Groups	117	6277.418	53.653		
Total	122	10488.295			

Table 56

Analysis of Variance Summary Table of Acceptability Dimension for Elderly Behaviors - Subgroup 2

Source	df	SS	MS	F Ratio	F Probability
Between Groups	5	20718.312	4143.662	55.436	.000
Within Groups	117	8745.352	74.747		
Total	122	29463.664			

Table 57

Analysis of Variance Summary Table of Effectiveness Dimension for Elderly Behaviors - Subgroup 3

Source	df	SS	MS	F Ratio	F Probability
Between Groups	5	5674.826	1152.965	22.842	.000
Within Groups	107	5400.981	50.477		
Total	112	11165.807			

Table 58

Analysis of Variance Summary Table of Autonomy Dimension for Elderly Behaviors - Subgroup 3

Source	df	SS	MS	F Ratio	F Probability
Between Groups	5	10477.906	2095.581	40.877	.000
Within Groups	107	5485.371	51.265		
Total	112	15963.277			

Table 59

Analysis of Variance Summary Table of Acceptability Dimension for Elderly Behaviors - Subgroup 3

Source	df	SS	MS	F Ratio	F Probability
Between Groups	5	11511.773	2302.355	23.613	.000
Within Groups	107	10433.098	97.506		
Total	112	21944.871			

Table 60

Analysis of Variance Summary Table of Effectiveness Dimension for Elderly

Source	df	SS	MS	F Ratio	F Probability
Between Groups	8	5336.082	667.010	12.629	.000
Within Groups	131	6918.859	52.816		
Total	139	12254.941			

Table 61

Analysis of Variance Summary Table of Autonomy Dimension for Elderly

Source	df	SS	MS	F Ratio	F Probability
Between Groups	8	6104.344	763.043	12.799	.000
Within Groups	131	7809.633	59.616		
Total	139	13913.977			

Table 62

Analysis of Variance Summary Table of Acceptability Dimension for Elderly

Source	df	SS	MS	F Ratio	F Probability
Between Groups	8	20420.281	2552.535	18.238	.000
Within Groups	131	18334.547	139.958		
Total	139	38754.828			

Table 63

Analysis of Variance Summary Table of Effectiveness Dimension for Elderly Appearing with Children

Source	df	SS	MS	F Ratio	F Probability
Between Groups	2	896.697	448.349	9.113	.000
Within Groups	58	2853.535	49.199		
Total	60	3750.232			

Table 64

Analysis of Variance Summary Table of Autonomy Dimension for Elderly Appearing with Children

Source	df	SS	MS	F Ratio	F Probability
Between Groups	2	629.607	314.804	5.972	.005
Within Groups	58	3057.346	52.713		
Total	60	3686.953			

Table 65

Analysis of Variance Summary Table of Acceptability Dimension for Elderly Appearing with Children

Source	df	SS	MS	F Ratio	F Probability
Between Groups	2	347.820	173.910	1.559	.217
Within Groups	58	6469.230	111.538		
Total	60	6817.050			

Table 66

Analysis of Variance Summary Table of Effectiveness Dimension for Elderly Not Appearing with Children

Source	df	SS	MS	F Ratio	F Probabilit
Between Groups	2	3286.678	1643.339	30.722	.000
Within Groups	76	4065.322	53.491		
Total	78	7352.000			

Table 67

Analysis of Variance Summary Table of Autonomy Dimension for Elderly Not Appearing with Children

Source	df	SS	MS	F Ratio	F Probability
Between Groups	2	4977.160	2488.580	39.798	.000
Within Groups	76	4752.285	62.530		
Total	78	9729.445			

Table 68

Analysis of Variance Summary Table of Acceptability Dimension for Elderly Not Appearing with Children

Source	df	SS	MS	F Ratio	F Probability
Between Groups	2	13956.590	6978.295	44.698	.000
Within Groups	76	11865.312	156.123		
Total	78	25821.902			

Table 69

Analysis of Variance Summary Table of Effectiveness Dimension for Children

Source	df	SS	MS	F Ratio	F Probability
Between Groups	9	1460.477	162.275	3.953	.000
Within Groups	138	5665.711	41.056		
Total	147	7126.188			

Table 70

Analysis of Variance Summary Table of Autonomy Dimension for Children

Source	df	SS	MS	F Ratio	F Probability
Between Groups	9	1389.336	154.371	3.242	.001
Within Groups	138	6570.477	47.612		
Total	147	7959.813			

Table 71

Analysis of Variance Summary Table of Acceptability Dimension for Children

Source	df	SS	MS	F Ratio	F Probabili
Between Groups	9	2450.555	272.284	2.739	.006
Within Groups	138	13718.883	99.412		
Total	147	16169.438			

Table 72

Analysis of Variance Summary Table of Effectiveness Dimension
for Children Appearing with Elderly

Source	df	SS	MS	F Ratio	F Probability
Between Groups	2	1174.100	587.050	151.113	.000
Within Groups	90	3496.031	38.845		
Total	92	4670.131			

Table 73

Analysis of Variance Summary Table of Autonomy Dimension
for Children Appearing with Elderly

Source	df	SS	MS	F Ratio	F Probability
Between Groups	2	1115.998	557.999	14.118	.000
Within Groups	90	3557.123	39.524		
Total	92	4673.121			

Table 74

Analysis of Variance Summary Table of Acceptability Dimension
for Children Appearing with Elderly

Source	df	SS	MS	F Ratio	F Probabilit
Between Groups	2	973.512	486.756	4.816	.010
Within Groups	90	9096.621	101.074		
Total	92	10070.133			

Table 75

Analysis of Variance Summary Table of Effectiveness Dimension for Children Not Appearing with Elderly

Source	df	SS	MS	F Ratio	F Probabilit
Between Groups	3	279.052	93.017	2.186	.100
Within Groups	51	2169.677	42.543		
Total	54	2448.729			

Table 76

Analysis of Variance Summary Table of Autonomy Dimension for Children Not Appearing with Elderly

Source	df	SS	MS	F Ratio	F Probability
Between Groups	3	246.759	82.253	1.392	.255
Within Groups	51	3013.351	59.085		
Total	54	3260.110			

Table 77

Analysis of Variance Summary Table of Acceptability Dimension for Children Not Appearing with Elderly

Source	df	SS	MS	F Ratio	F Probability
Between Groups	3	212.582	70.861	.782	.512
Within Groups	51	4622.258	90.632		
Total	54	4834.840			

Table 78

Analysis of Variance Summary Table of Effectiveness Dimension for Children and Elderly Appearing Together

Source	df	SS	MS	F Ratio	F Probability
Between Groups	5	2201.496	440.299	10.263	.000
Within Groups	148	6349.570	42.903		
Total	153	8551.066			

Table 79

Analysis of Variance Summary Table of Autonomy Dimension for Children and Elderly Appearing Together

Source	df	SS	MS	F Ratio	F Probability
Between Groups	5	2794.262	558.852	12.504	.000
Within Groups	148	6614.469	44.692		
Total	153	9408.731			

Table 80

Analysis of Variance Summary Table of Acceptability Dimension for Children and Elderly Appearing Together

Source	df	SS	MS	F Ratio	F Probability
Between Groups	5	1544.359	308.872	2.937	.015
Within Groups	148	15565.859	105.175		
Total	153	17110.218			

Table 81

Analysis of Variance Summary Table of Effectiveness Dimension for Children and Elderly Not Appearing Together

Source	df	SS	MS	F Ratio	F Probability
Between Groups	12	4183.150	348.596	6.765	.000
Within Groups	121	6235.000	51.529		
Total	133	10418.150			

Table 82

Analysis of Variance Summary Table of Autonomy Dimension for Children and Elderly Not Appearing Together

Source	df	SS	MS	F Ratio	F Probability
Between Groups	12	5237.887	436.491	6.801	.000
Within Groups	121	7765.637	64.179		
Total	133	13003.524			

Table 83

Analysis of Variance Summary Table of Acceptability Dimension for Children and Elderly Not Appearing Together

Source	df	SS	MS	F Ratio	F Probability
Between Groups	12	23449.484	1954.124	14.341	.000
Within Groups	121	16487.578	136.261		
Total	133	39937.062			

Table 84

Analysis of Variance Summary Table of Effectiveness Dimension For Adults

Source	df	SS	MS	F Ratio	F Probability
Between Groups	2	304.258	152.129	2.714	.067
Within Groups	206	11548.723	56.062		
Total	208	11852.981			

Table 85

Analysis of Variance Summary Table of Autonomy Dimension for Adults

Source	df	SS	MS	F Ratio	F Probability
Between Groups	2	1168.996	584.498	8.739	.000
Within Groups	206	13777.785	66.883		
Total	208	14946.781			

Table 86

Analysis of Variance Summary Table of Acceptability Dimension for Adults

Source	df	SS	MS	F Ratio	F Probabilit
Between Groups	2	821.750	410.875	3.121	.045
Within Groups	206	27120.313	131.652		
Total	208	27942.063			

Table 87

Analysis of Variance Summary Table of Effectiveness Dimension for Adult No. 1

Source	df	SS	MS	F Ratio	F Probability
Between Groups	3	80.076	26.692	.426	.738
Within Groups	97	6071.727	62.595		
Total	100	6151.803			

Table 88

Analysis of Variance Summary Table of Autonomy Dimension for Adult No. 1

Source	df	SS	MS	F Ratio	F Probability
Between Groups	3	18.478	6.159	.098	.956
Within Groups	97	6067.307	62.550		
Total	100	6085.785			

Table 89

Analysis of Variance Summary Table of Acceptability Dimension for Adult No. 1

Source	df	SS	MS	F Ratio	F Probabili
Between Groups	3	379.133	126.378	1.100	.354
Within Groups	97	11147.508	114.923		
Total	100	11526.641			

Table 90

Analysis of Variance Summary Table of Effectiveness Dimension for Adult No. 2

Source	df	SS	MS	F Ratio	F Probability
Between Groups	3	277.836	92.612	1.882	.136
Within Groups	104	5119.082	49.222		
Total	107	5396.918			

Table 91

Analysis of Variance Summary Table of Autonomy Dimension for Adult No. 2

Source	df	SS	MS	F Ratio	F Probability
Between Groups	3	457.924	152.641	2.194	.092
Within Groups	104	7234.076	69.558		
Total	107	7692.000			

Table 92

Analysis of Variance Summary Table of Acceptability Dimension for Adult No. 2

Source	df	SS	MS	F Ratio	F Probability
Between Groups	3	351.102	117.034	.799	.500
Within Groups	104	15242.562	146.563		
Total	107	15593.664			

Table 93

Analysis of Variance Summary Table of Effectiveness Dimension for Child-Adult-Elderly

Source	df	SS	MS	F Ratio	F Probability
Between Groups	3	465.533	155.178	2.942	.039
Within Groups	63	3322.736	52.742		
Total	66	3788.269			

Table 94

Analysis of Variance Summary Table of Autonomy Dimension for Child-Adult-Elderly

Source	df	SS	MS	F Ratio	F Probabilit
Between Groups	3	255.815	85.272	1.807	.153
Within Groups	63	2973.380	47.196		
Total	66	3229.195			

Table 95

Analysis of Variance Summary Table of Acceptability Dimension for Child-Adult-Elderly

Source	df	SS	MS	F Ratio	F Probability
Between Groups	3	1857.066	619.022	7.033	.000
Within Groups	63	5545.234	88.020		
Total	66	7402.300			

APPENDIX I

ROLE DESCRIPTIONS OF PERSONS SELECTED FOR THE SEMANTIC DIFFERENTIAL ANALYSIS

The following are descriptions of the roles portrayed by the elderly who were rated on the "Aging Semantic Differential". These roles were depicted in the sequences randomly selected from the evening sample. (See p. 23 of text for selection procedures.) A few comments on the person's physical appearance are also included to provide a more comprehensive picture of the persons in their roles. Appendix B lists the shows by date, time and network, and Appendix D contains a listing of the shows in which these persons appeared.

Elderly Rated for Question Four

Colonel Potter

In this sequence, as a colonel in the armed forces, he interacted with two men of lower rank. In one interaction he gave advice. His reaction to a request made by the second man was one of anger, as indicated by the raising of his voice.

Appearance: Dressed in army fatigues; wore wire-rimmed glasses; white-haired.

Chimpanzee Trainer

This man appeared with several chimpanzees on a variety show. He and the chimps actively performed numerous feats. The acts were accompanied by his humorous comments.

Appearance: He wore a dark blazer with light colored pants; white-haired.

Bert the Barber

Bert summoned the main character into his barber shop and warned him about impending danger. He spoke with a heavy accent.

Appearance: He wore a barber's smock and glasses; partially bald; white-haired.

Allen Funt

Seated in a chair, he briefly explained the purpose of his show and then introduced his co-hostess.

Appearance: He wore a plaid jacket, dark trousers, and tie; white-haired; partially bald.

Bob Hope

Portraying himself, Mr. Hope did a comedy monologue before a large audience.

Appearance: He wore a tuxedo; dark-haired.

Mr. Jamison

Mr. Jamison entered the scene riding a go-cart down a dirt street. He encountered one woman, got out of the go-cart and demanded to know where someone else was. After the man he was looking for arrived, Mr. Jamison assumed a secondary role and only made a few remarks.

Appearance: He wore a suit and hat; gray-haired.

The Desk Clerk

In this sequence, he engaged in an argumentative discussion about hotel accommodations with one of the main characters. He was behind the counter with a number of people anxiously waiting for his assistance.

Appearance: He wore a suit and glasses; partially bald; gray-haired.

Mr. Lujak

This man was brought, handcuffed, into a police station for trying to rob a panhandler. The situation involved some humor.

Appearance: Unkempt; he wore a C.P.O. jacket, neck scarf and knit cap.

Dr. Bailor

He was depicted as a professor, holding class in a large lecture hall of a college or university. He answered queries by students as to the dangers of some nuclear materials which he had in his laboratory. The discussion became intense as he defended his position on the topic.

Appearance: He wore a white lab coat, tie and dark-rimmed glasses; white-haired.

Bing Crosby

Mr. Crosby sang a song with Carol Burnett, while they were seated side by side. They then began to do a soft shoe dance.

Appearance: He wore a tuxedo; slightly graying hair.

Female Senior Citizen

This woman was portrayed as she talked with Allen Funt on the telephone. He asked her a few questions about herself. She responded that she was active and satisfied with her life. She smiled throughout the conversation.

Appearance: She wore a trench coat; short, white hair.

Grandpa Walton

In this sequence, he helped his recuperating wife into a rocking chair on the front porch, doted over her, gave her a kiss, and told someone to care for her while he went to town. He left in a truck driven by his son.

Appearance: He wore bib overalls and a workshirt; white hair, somewhat long, and a moustache.

Leo Kahn

Mr. Kahn tried to convince a friend, who was also elderly, that they should unite against someone who was extorting money from them. As two other people walked into the apartment, their conversation subsided. He listened while the others spoke.

Appearance: He wore a light shirt, tie and dark pants; partially bald; dark-haired; heavily accented speech.

Dr. Brinkman

Dr. Brinkman was portrayed as an administrator of a health club that was used for criminal activities. He was interviewed as to the nature of his club by the main character, but was very defensive. He was then called away.

Appearance: He wore a suit and tie; white-haired; partially bald.

Jack

Jack was portrayed as a frontiersman. In this sequence he was walking with his mule when he encountered, in a comical way, a chimpanzee. His description of this event to two of the main characters was exaggerated. He appeared to be ignorant about such animals, and the other persons laughed at his story after they saw the chimp.

Appearance: He wore a buckskin jacket and pants and a hat with a fur brim; long, white hair; beard and moustache.

Woman in Hat Stand

She was operating a hat stand located near a beach, when she was approached by two teenage boys. They gave her a hard time while purchasing a hat. As they walked away, she gave a look of disgust

Appearance: She wore a printed dress and a wide-brimmed sun hat; she was a heavy-set woman; dark-haired.

Taste Tester

This man was participating in a taste test of bananas. He was persuaded by Allen Funt (over the telephone) to change his original opinion, when told that he selected the wrong brand.

Appearance: He wore a suit and tie; he wore glasses; gray/white-haired; partially bald.

Barney

In this sequence, Barney was engaged in conversation with the captain of a ship. The conversation concerned preparation for a future voyage. He was told to get the ship ready.

Appearance: He wore a workshirt and pants and a seaman's cap; he had on half-rimmed glasses.

Different Groups Rated for Question Five

Children

Elizabeth

In this sequence Elizabeth entered her mother's room along with her two sisters. She went over to the bed where her mother was lying and sat on the bed. The four people engaged in a conversation about what the mother would wear for her anniversary. In jest, Elizabeth offered her tap shoes for her mother to wear.

Appearance: She was dressed in overalls; freckles; pigtails.

Penny

Penny was engaged in a humorous discussion with her mother.

Appearance: She was a young black girl with her hair pulled back; she had on pants, a sweater, and an overblouse.

The Young Boy

Seated beside a young girl, this boy was telling a joke to Allen Funt.

Appearance: He was a young Oriental boy wearing pants and a striped shirt.

Adults

Tom Kennedy

Tom Kennedy, the host of a game show, was shown with a contestant who was about to participate in the show. He discussed her winnings thus far and told of what she was to do on the show that evening.

Appearance: He wore a tuxedo and wire-rimmed glasses.

Schneider

Portrayed as a superintendent of an apartment building, he gave advice to a teenage girl who was having trouble with schoolwork. Their conversation was very humorous.

Appearance: He wore denim pants and vest, T-shirt, workbelt with tools; a tattoo on his arm; a cigarette pack rolled in his shirt sleeve; dark hair and moustache.

Elderly

Bob Hope

Portraying himself, Mr. Hope did a comedy monologue before a large audience.

Appearance: He wore a tuxedo; dark-haired.

Colonel Potter

In this sequence, as a colonel in the armed forces, he interacted with two men of lower rank. In one interaction he gave advice. His reaction to a request made by the second man was one of anger, as indicated by the raising of his voice.

Appearance: Dressed in army fatigues; wore wire-rimmed glasses; white-haired.

Pop

This man was seated at a kitchen table talking with his son. They had a serious conversation about life. He appeared very distressed and bitter about his wife's death and argued with his son about his son's future.

Appearance: He had on a cardigan sweater and dark pants; white, wavy hair.

Children in Child/Elderly Interactions

The Young Boy

This boy was interviewed by Allen Funt. He gave a comical description of his teacher, when he was asked what she looked like.

Appearance: He wore a polo shirt and pants; hair somewhat long.

Eric

Eric was seated across a desk from Allen Funt who was interviewing him. He and Mr. Funt devised a plan to solve a problem which Eric had concerning a girl in his class. He engaged in role play with Mr. Funt to act out the solution--a very humorous scene.

Appearance: Dressed in a tie-dyed sweater; beads around neck; a front tooth was missing.

The Young Girl

After receiving cotton candy from her uncle, she expressed her gratitude. She commented, "This is the best time I've every had!" She then went off with another man for an amusement ride.

Appearance: She wore a sweater, pants and a sailor's hat; long dark hair.

Elderly in Child/Elderly Interactions

Allen Funt

He interviewed a young boy about his teacher's appearance.

Appearance: He was dressed in a plain shirt and wore dark-rimmed glasses; white-haired; partially bald.

Allen Funt

Seated across a desk from a young boy whom he was interviewing, he and the boy devised a plan to solve a problem the boy was having with a girl in his class. He and the boy engaged in role play. The sequence was very humorous.

Appearance: He wore a printed shirt; white-haired; partially bald.

Uncle Cleaver

He was at an amusement park with a little girl. He bought her cotton candy and enthusiastically suggested she go for another ride. He watched as she walked off with another man who was with them.

Appearance: He wore a V neck sweater and dark pants; wavy, graying hair.